MANAGED LANES SYSTEM PLAN

Traffic and Revenue Analysis Update

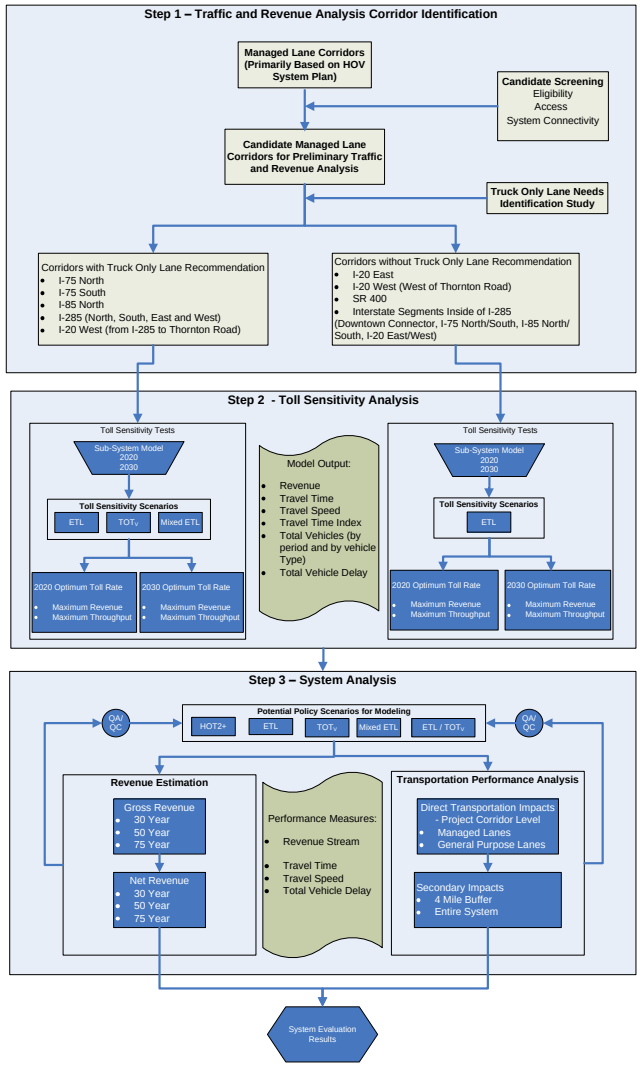


Traffic and Revenue Analysis Overview

- Preliminary Traffic and Revenue
  - Not intended for use in support of project financing
- Models From Atlanta Regional Commission
  - Use ARC's latest socio-economic forecasts
  - Reflects the most up-to-date project lists from both the TIP and RTP
- Produce Traffic and Revenue Projections
  - Two Revenue Data Points (2020 and 2030)
  - Georgia PPI uses 50 Year Forecast
  - Cumulative Revenue Forecast: 30-year, 50-year and 75-year

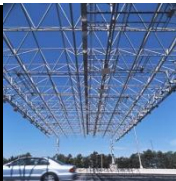


Traffic and Revenue Analysis Process Overview



- Step 1:
  - T&R Corridor Identification
- Step 2:
  - Toll Sensitivity Analysis
  - By Corridor and Segment
- Step 3:
  - System-wide Investment Policy
  - System Performance Analysis





Traffic and Revenue Analysis Process Overview
Step 1

Step 1 – Traffic and Revenue Analysis Corridor Identification

Managed Lane Corridors (Primarily Based on HOV System Plan) Map

Candidate Screening
Eligibility
Access
System Connectivity
Map

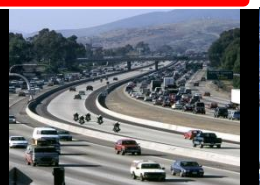
Candidate Managed Lane Corridors for Preliminary Traffic and Revenue Analysis Map

Truck Only Lane Needs Identification Study

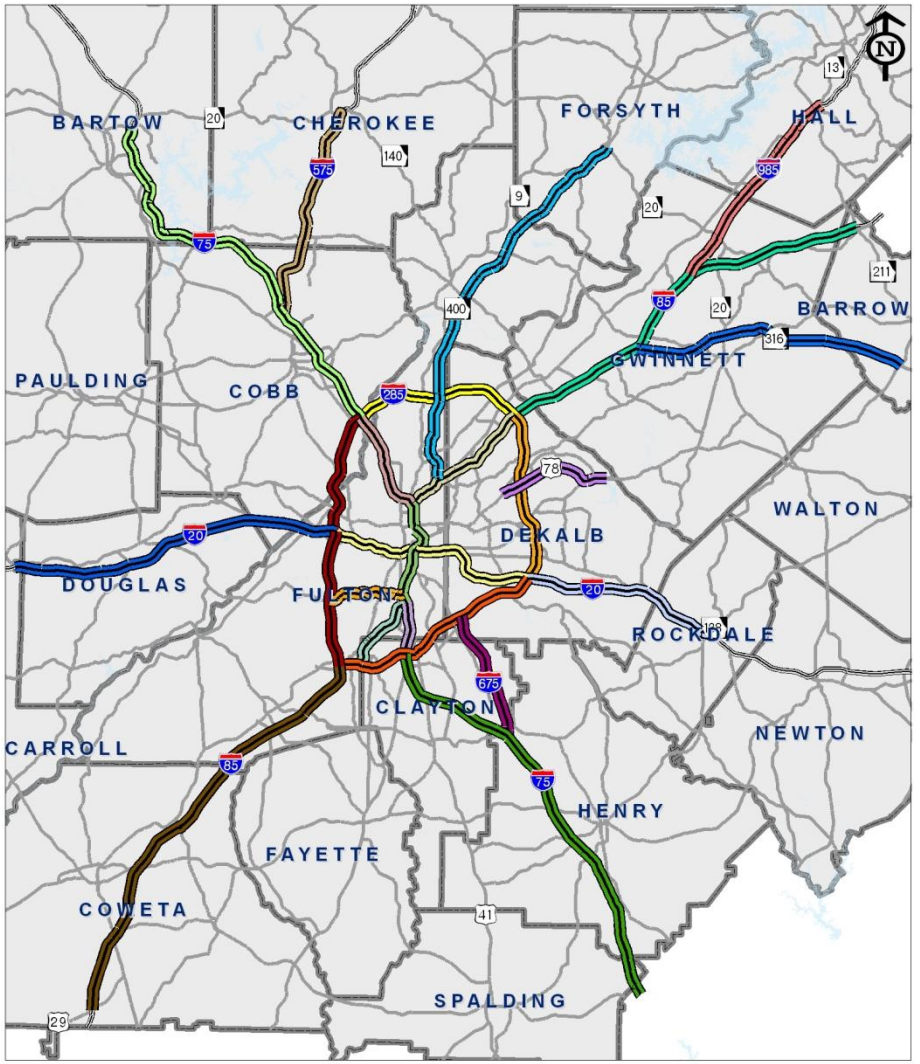
Corridors with Truck Only Lane Recommendation
- I-75 North
- I-75 South
- I-85 North
- I-285 (North, South, East and West)
- I-20 West (from I-285 to Thornton Road)

Corridors without Truck Only Lane Recommendation
- I-20 East
- I-20 West (West of Thornton Road)
- SR 400
- I-575
- Interstate Segments Inside of I-285

(Downtown Connector, I-75 North/South, I-85 North/ South, I-20 East/West)

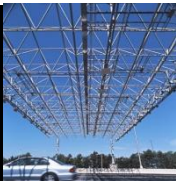

MLSP Corridors



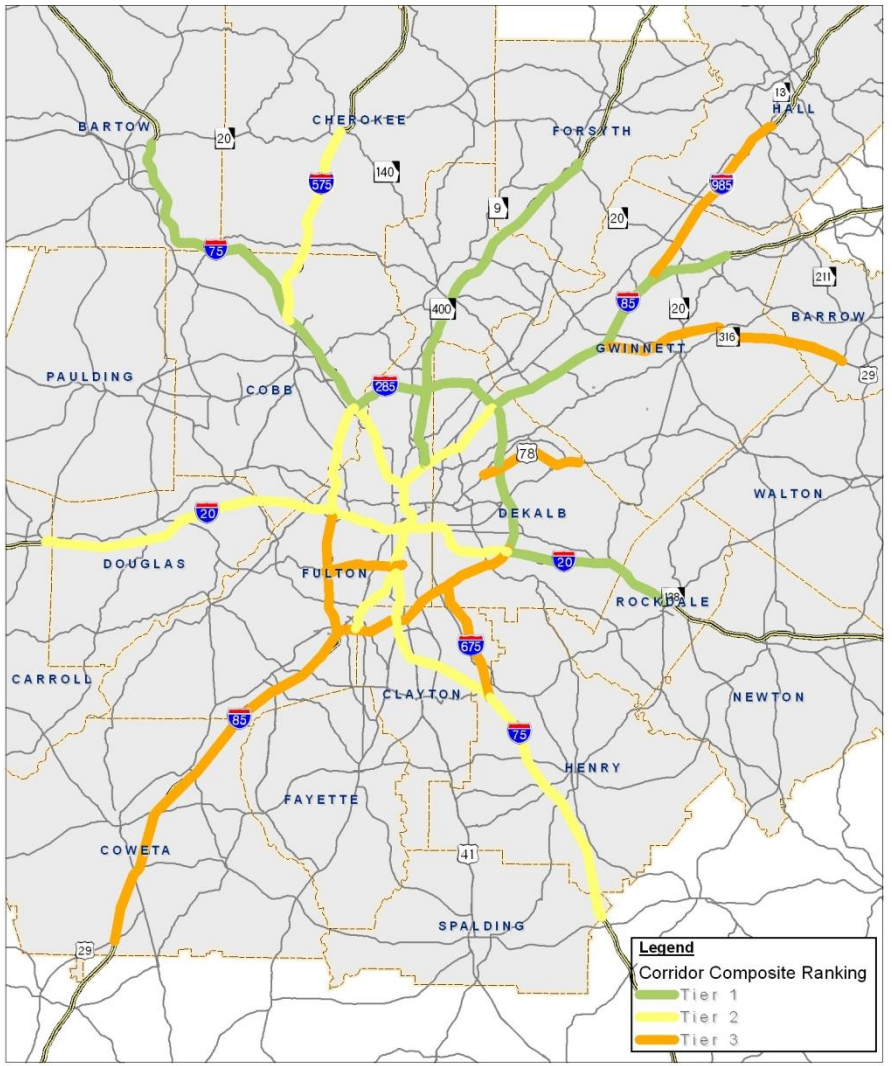
- I-75 North from I-285 North to SR 20
- I-75 South from I-285 South to SR 16
- I-85 North from I-285 North to SR 211
- I-85 South from I-285 South to US 29
- I-20 East from I-285 East to SR 138
- I-20 West from I-285 West to Post Road
- I-285 South from I-75 South to I-20 East
- I-285 East from I-20 East to I-85 North
- I-285 North from I-85 North to I-75 North
- I-285 Northwest from I-75 North to I-20 West
- I-285 Southwest from I-20 West to I-75 South
- Inside I-285 (I-75, I-85, I-20, Langford Parkway)
- I-575 from I-75 to SR 20
- I-675 from I-75 to I-285
- I-985 from I-85 to SR 13
- SR 400 from I-85 to SR 20
- SR 316 from I-85 to SR 81
- US 78 from N Druid Hills Road to Rockbridge Road

Back





Candidate Corridor Screening



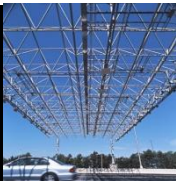
- **Tier 1 (Highest Priority)**
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ SR 400 from I-85 to SR 20

- **Tier 2**
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ Inside I-285 (I-75, I-85, I-20)
  - ✓ I-575 from I-75 to SR 20

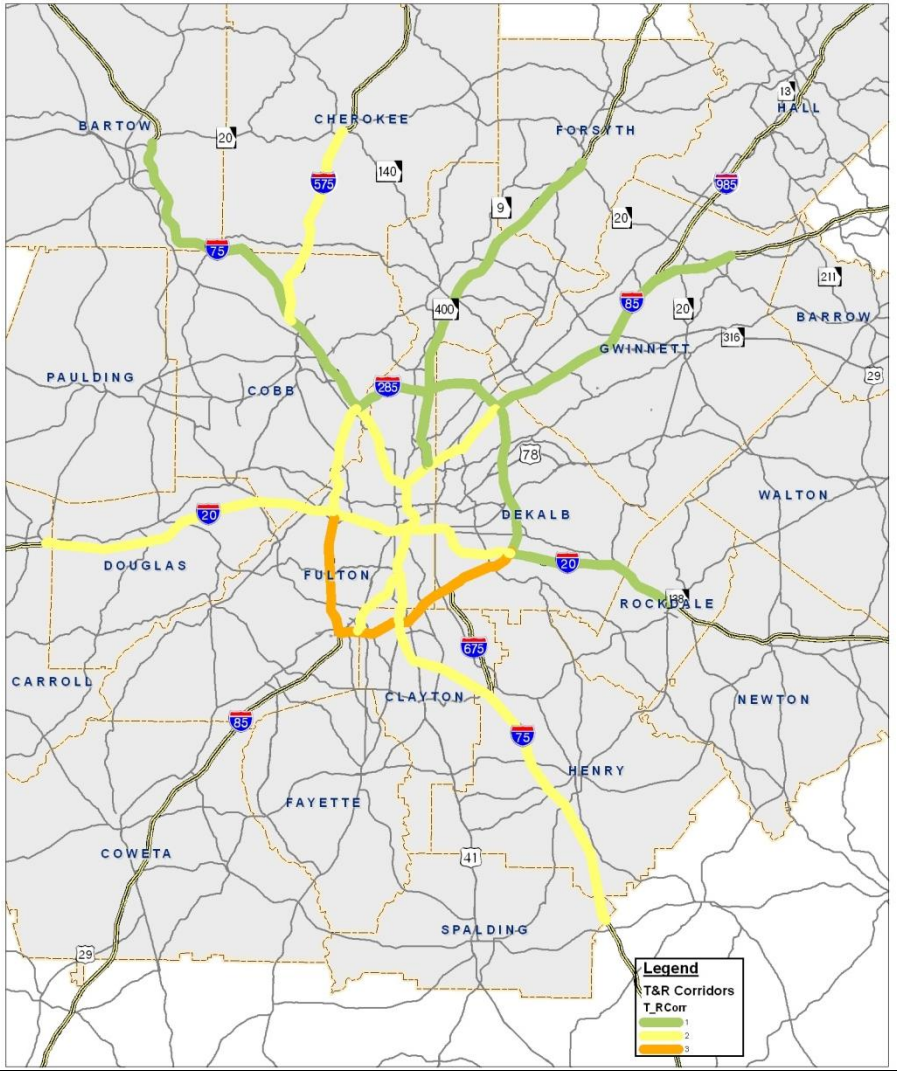
- **Tier 3 (Lowest Priority)**
  - ✓ I-85 South from I-285 South to US 29
  - ✓ I-285 South of I-20
  - ✓ I-675 from I-75 to I-285
  - ✓ I-985 from I-85 to SR 13
  - ✓ SR 316 from I-85 to SR 81
  - ✓ US 78 from N Druid Hills Road to Rockbridge Road
  - ✓ Langford Parkway

Back





Traffic and Revenue Analysis Corridors



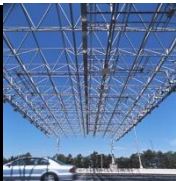
- **Tier 1 (Highest Priority)**
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ SR 400 from I-85 to SR 20

- **Tier 2**
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ Inside I-285 (I-75, I-85, I-20)
  - ✓ I-575 from I-75 to SR 20

- **Tier 3 (Lowest Priority)**
  - ✓ I-285 South of I-20

Back





Traffic and Revenue Analysis Process Overview
Step 2

Step 2 - Toll Sensitivity Analysis

Toll Sensitivity Tests

Sub-System Model
2020
2030

Toll Sensitivity Scenarios

ETL | TOT_V | Mixed ETL

2020 Optimum Toll Rate
- Maximum Revenue
- Maximum Throughput

2030 Optimum Toll Rate
- Maximum Revenue
- Maximum Throughput

Model Output:

- Revenue
- Travel Time
- Travel Speed
- Travel Time Index
- Total Vehicles (by period and by vehicle Type)
- Total Vehicle Delay

Toll Sensitivity Tests

Sub-System Model
2020
2030

Toll Sensitivity Scenarios

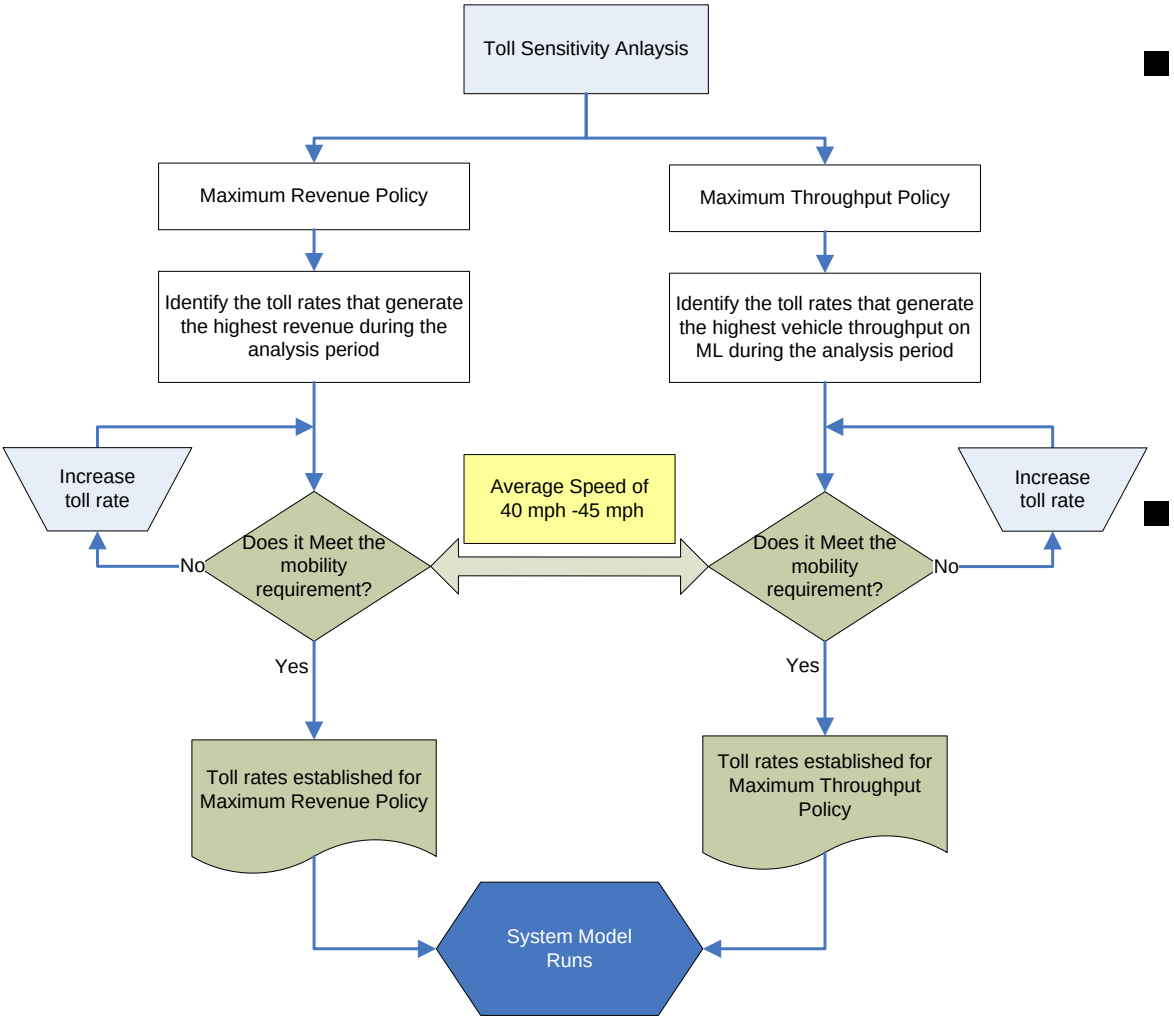
ETL

2020 Optimum Toll Rate
- Maximum Revenue
- Maximum Throughput

2030 Optimum Toll Rate
- Maximum Revenue
- Maximum Throughput



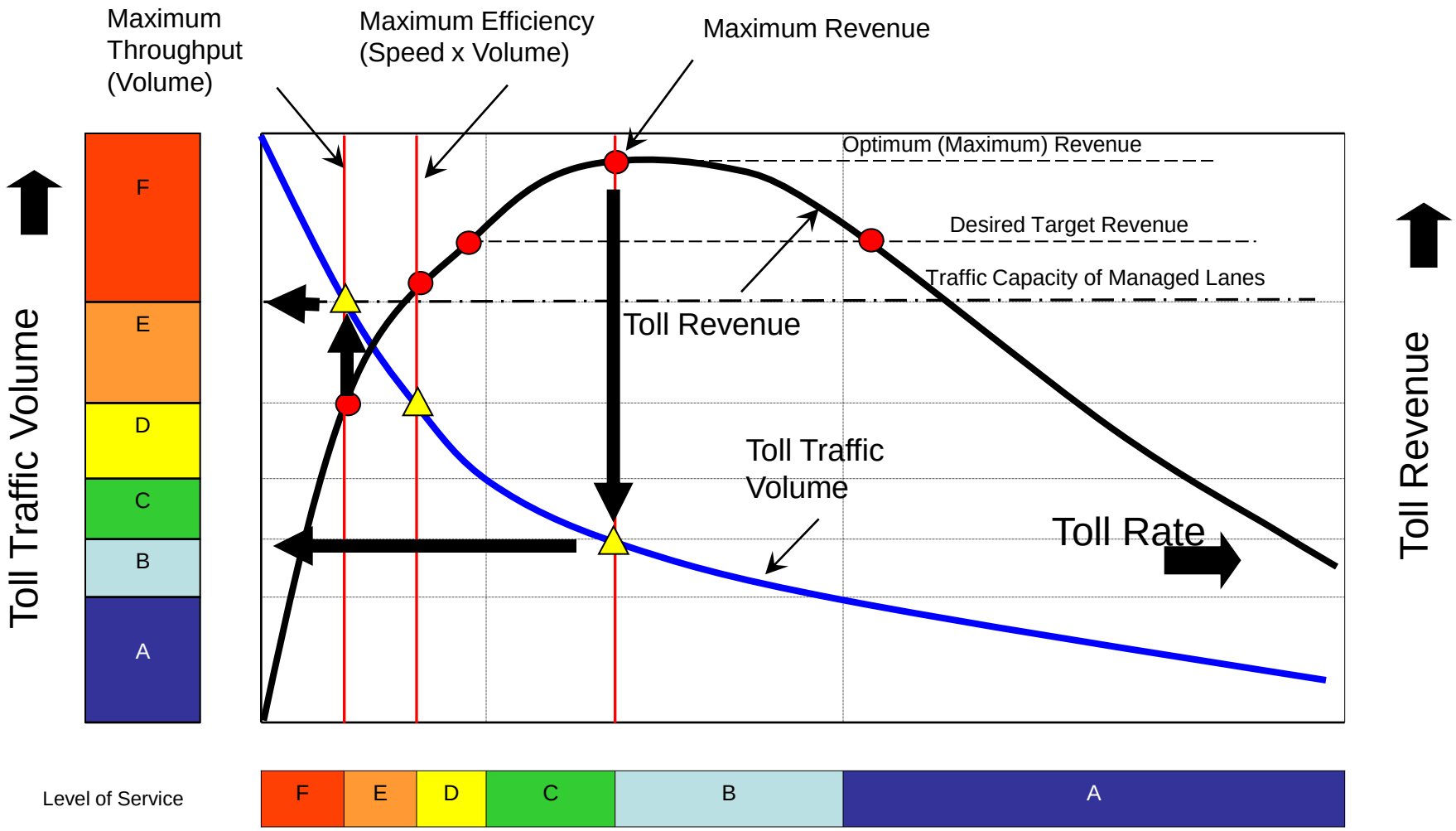
Traffic and Revenue Analysis Process Overview Step 2



- A measure of how sensitive users of a managed facility are to increasing toll rates
- Determine the toll rates for:
  - Maximum Revenue Policy
  - Maximum Throughput Policy

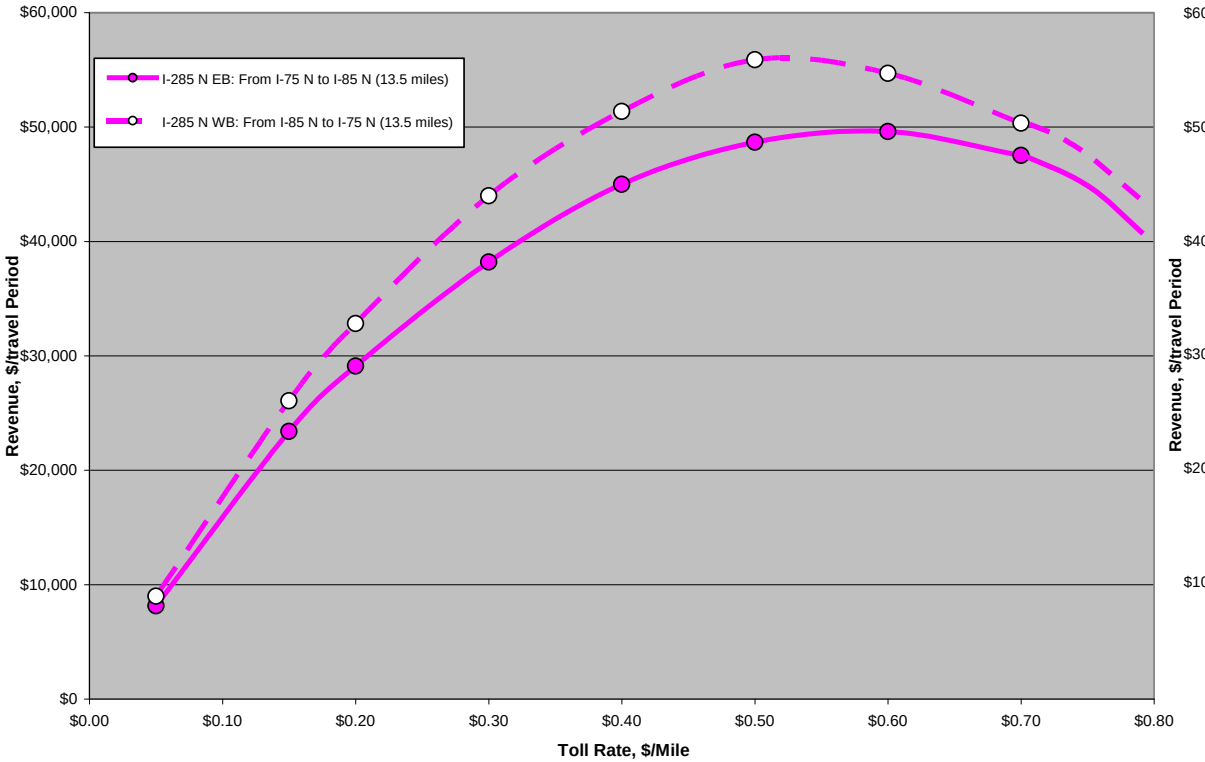


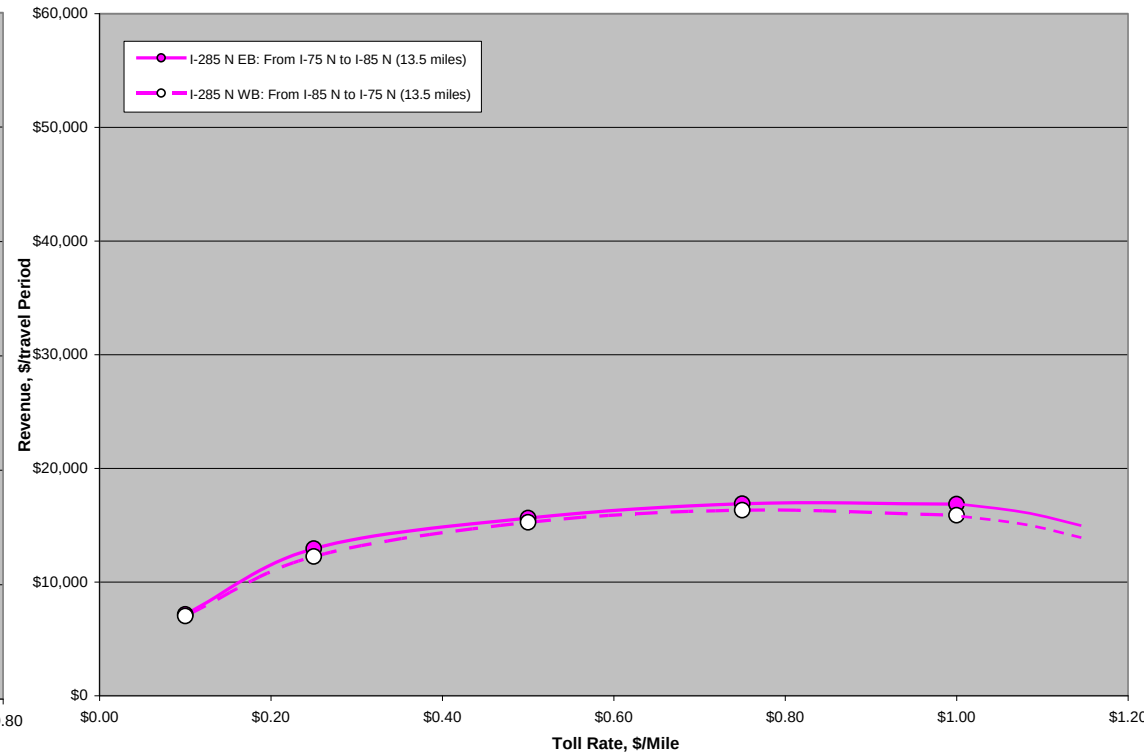
Toll Sensitivity Analysis



I-285 North Corridor – Toll Sensitivity Analysis

- ETL Sensitivity Curve
- TOT_V Sensitivity Curve





2030 PM Period Revenue Sensitivity Curves

Traffic and Revenue Analysis Process Overview
Step 3

Step 3 – System Analysis

QA/ QC

Potential Policy Scenarios for Modeling

- HOT2+
- ETL
- TOT_V
- Mixed ETL
- ETL / TOT_V

QA/ QC

Revenue Estimation

Gross Revenue
- 30 Year
- 50 Year
- 75 Year

Net Revenue
- 30 Year
- 50 Year
- 75 Year

Performance Measures:

- Revenue Stream
- Travel Time
- Travel Speed
- Total Vehicle Delay

Transportation Performance Analysis

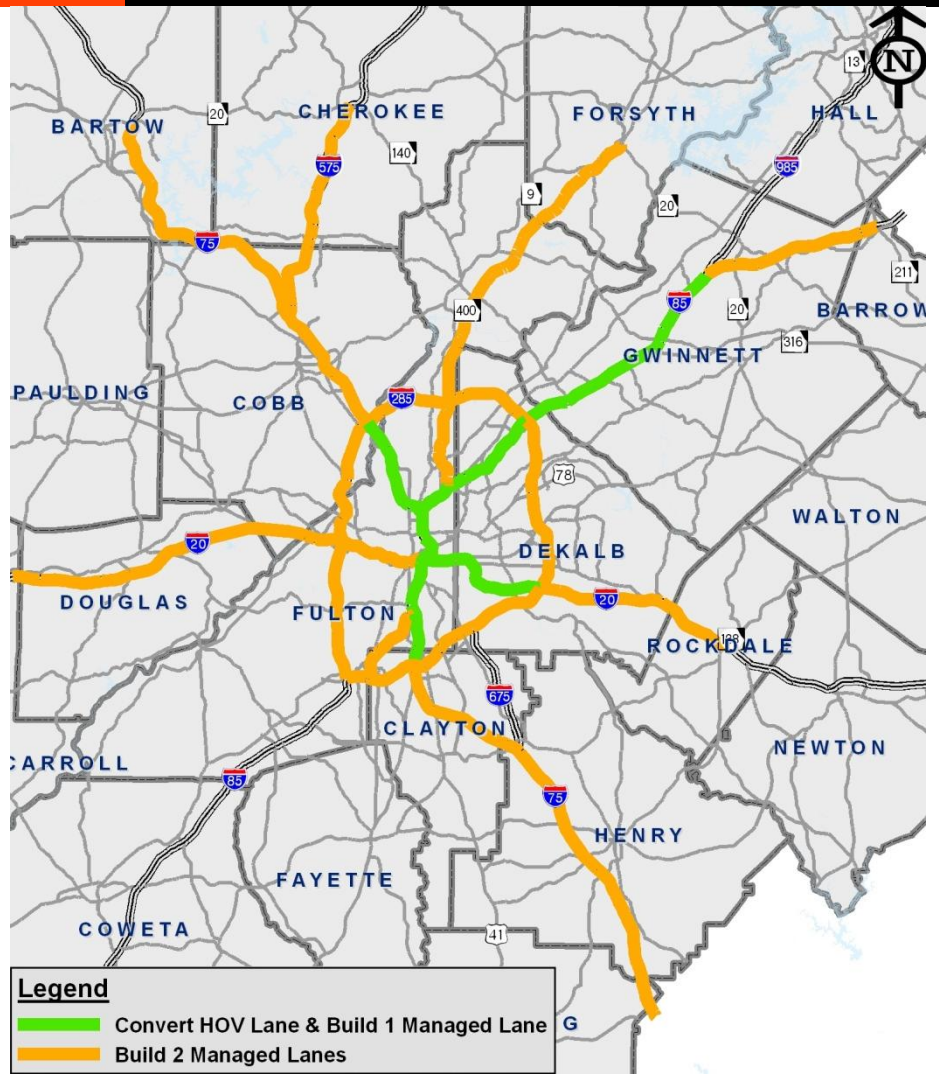
Direct Transportation Impacts
- Project Corridor Level
- Managed Lanes
- General Purpose Lanes

Secondary Impacts
- 4 Mile Buffer
- Entire System

System Evaluation Results

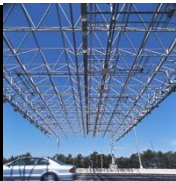


HOT Policy (HOT2+, HOT3+, HOT4+) – 2 Lanes

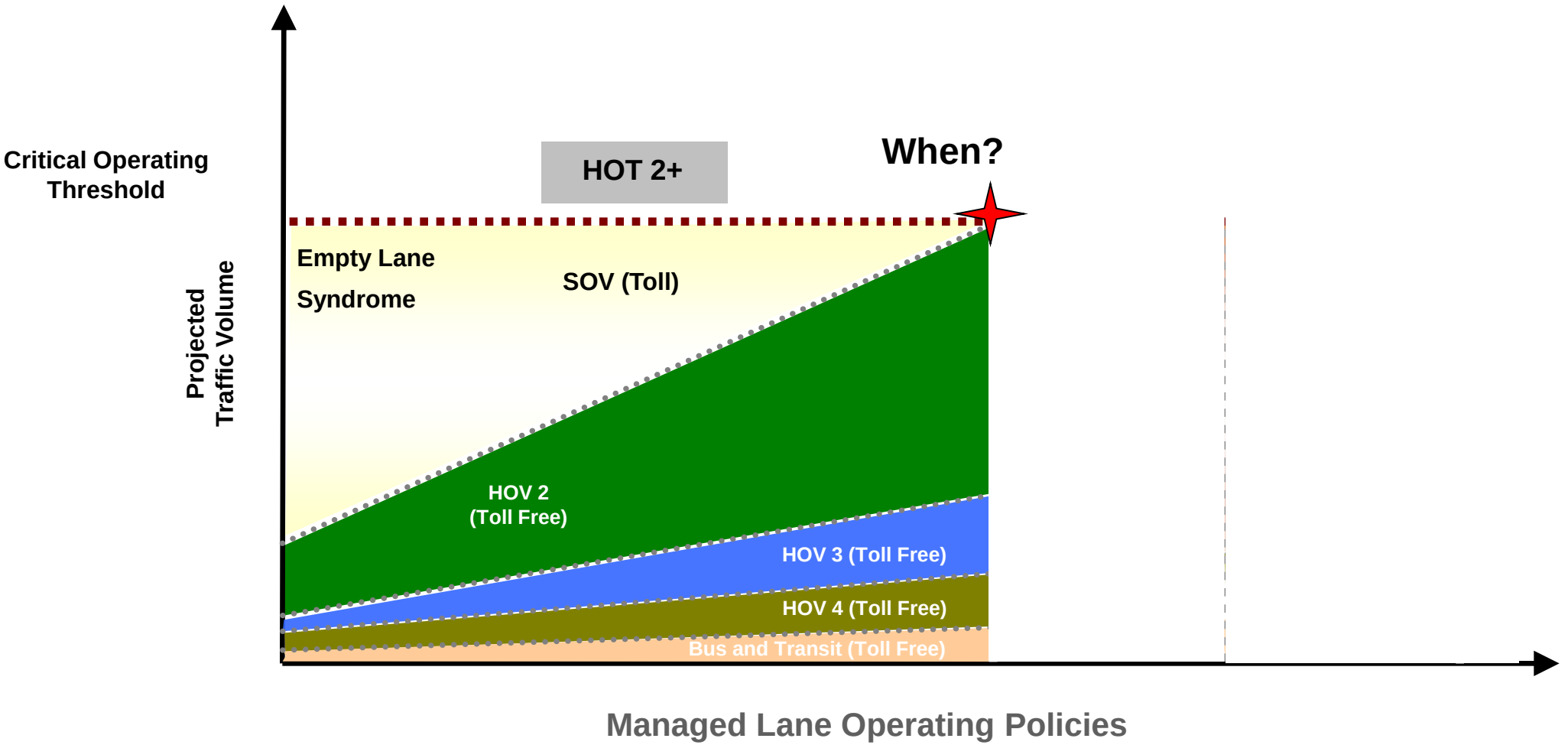


- Base Case
  - If Existing HOV Lane
    - Convert HOV Lane & Build 1 New HOT Lane in each direction
  - If No Existing HOV Lane
    - Build 2 New HOT Lanes in each direction
  - Barrier Separated and Buffer Separated
  - Approximately 1,100 new lane miles



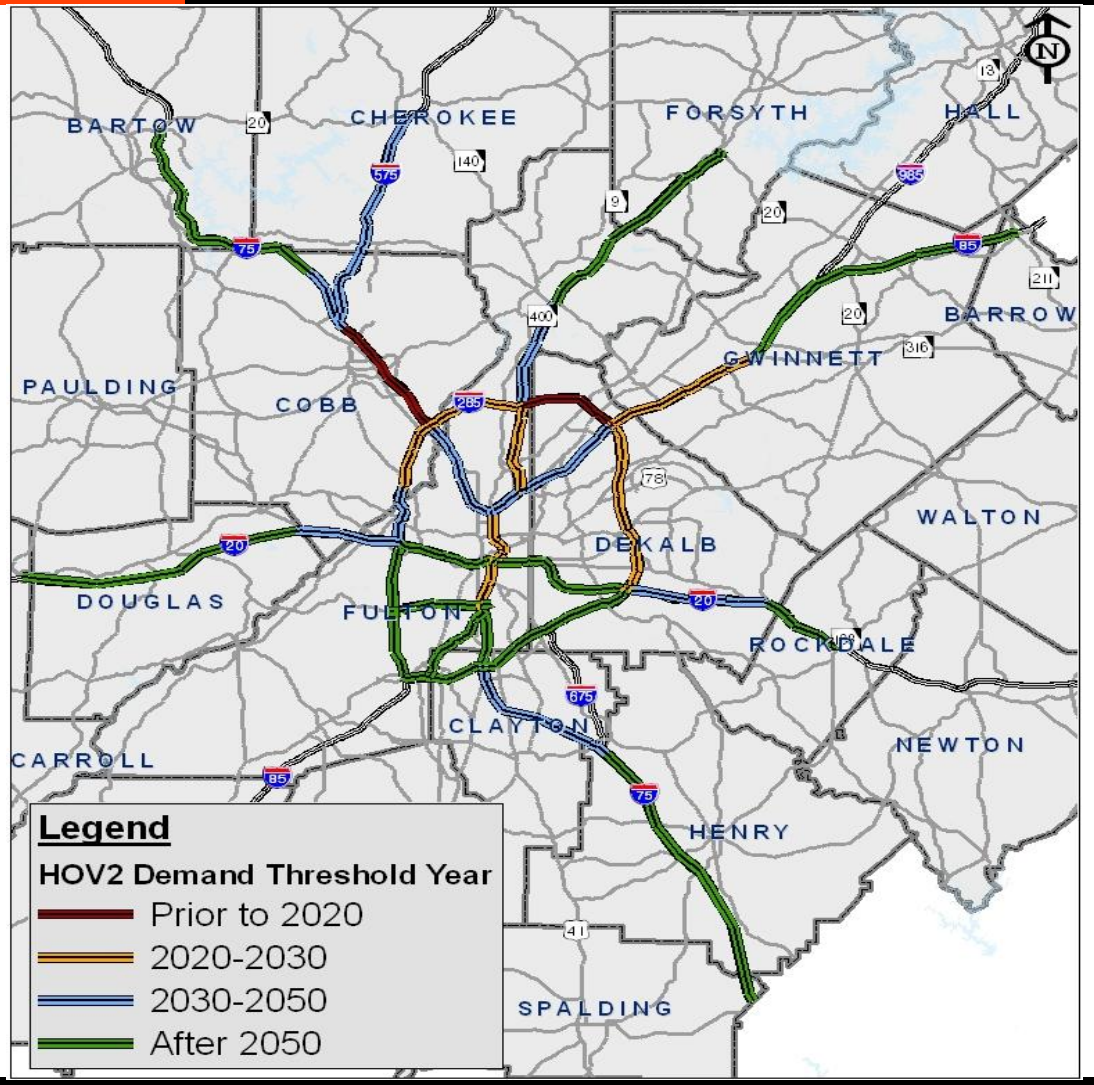


Lifespan of a HOV-HOT Facility





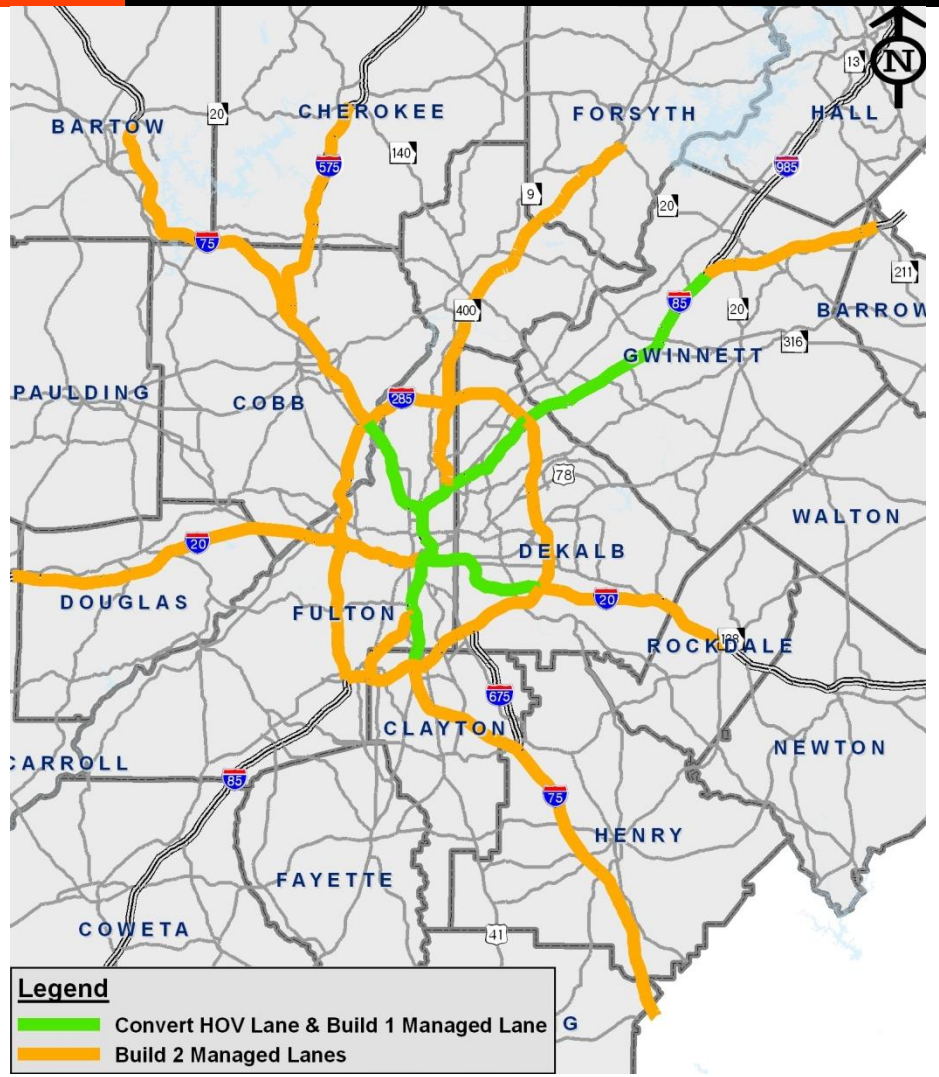
HOV Demand Threshold



- HOV2 free policy
- Assumed 2 HOV Lanes in each direction with the same access points as proposed for the ML
- Used the speed of 45 mph to identify HOV demand threshold time range
  - Prior to 2020 (I-75N, I-285N)
  - 2020 – 2030 (I-85N, I-285E, etc.)
  - 2030 – 2050 (I-75S, I-20E, etc.)
  - After 2050 (I-285S, etc.)
- No Revenue Estimation for HOT2+ Policy if there is no capacity for sale prior to 2020

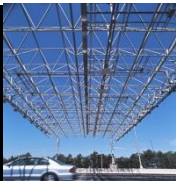


ETL Policy – 2 Lanes

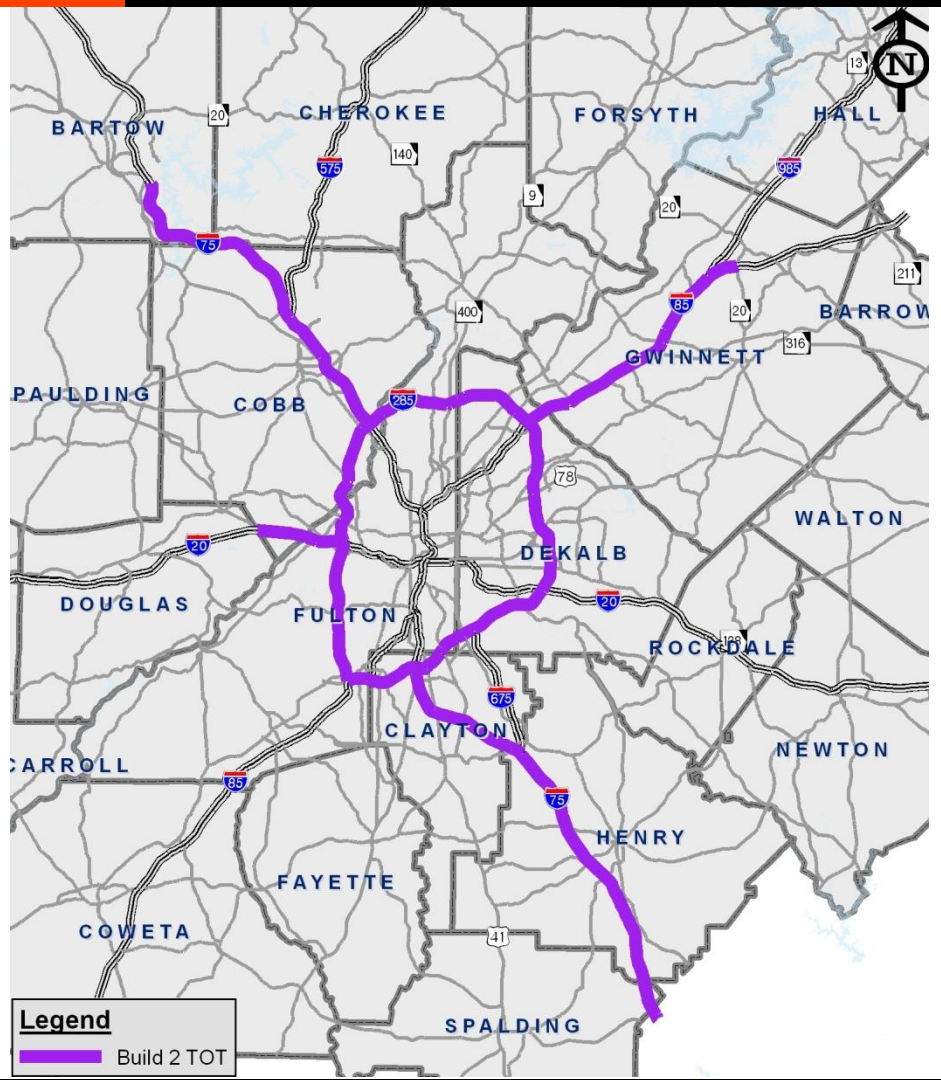


- Base Case
  - If Existing HOV Lane
    - Convert HOV Lane & Build 1 New Managed Lane in each direction
  - If No Existing HOV Lane
    - Build 2 New Managed Lanes in each direction
  - Barrier Separated and Buffer Separated
  - Approximately 1,100 new lane miles





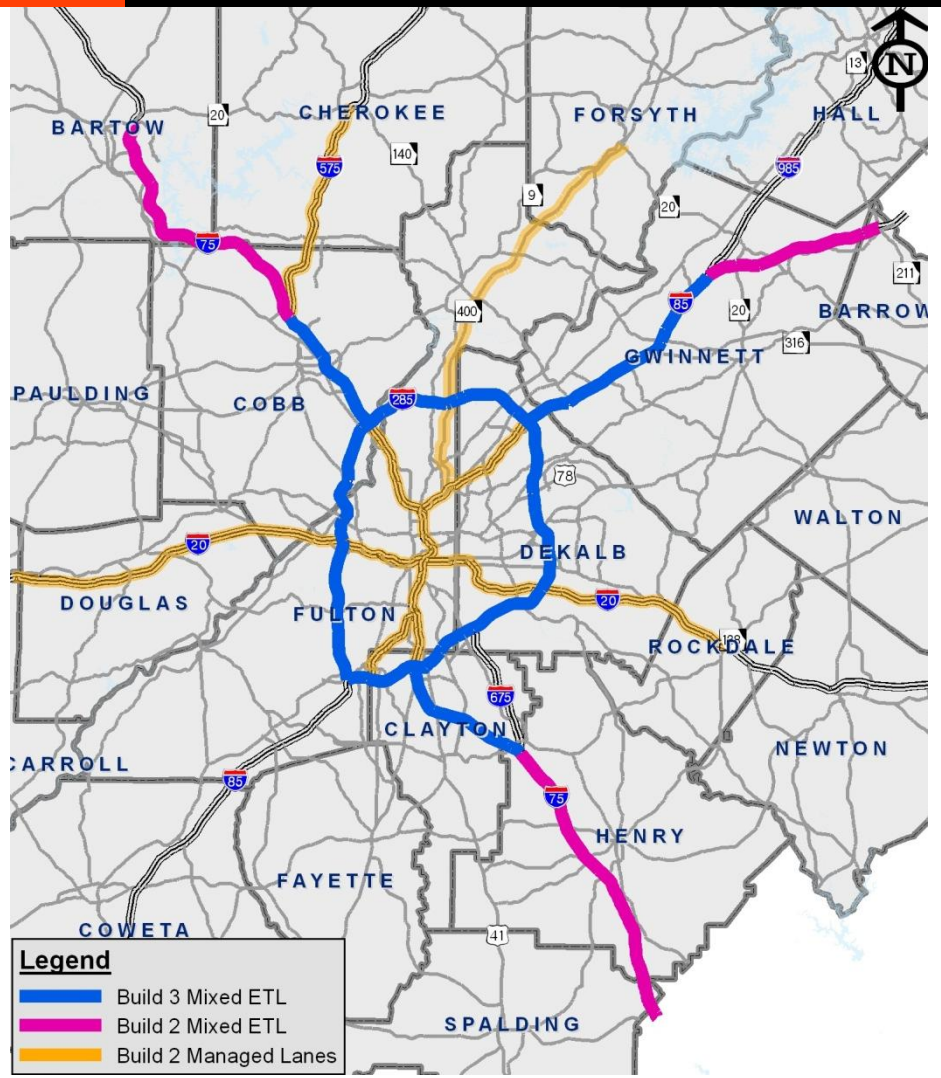
TOT Lane Policy – 2 Lanes



- Base Case
  - Build 2 New Truck Only Toll Lane in each direction
  - Barrier Separated and Buffer Separated
  - Approximately 680 new lane miles

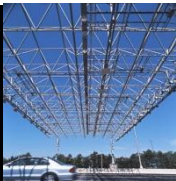


Mixed ETL Policy – 2/3 Lanes

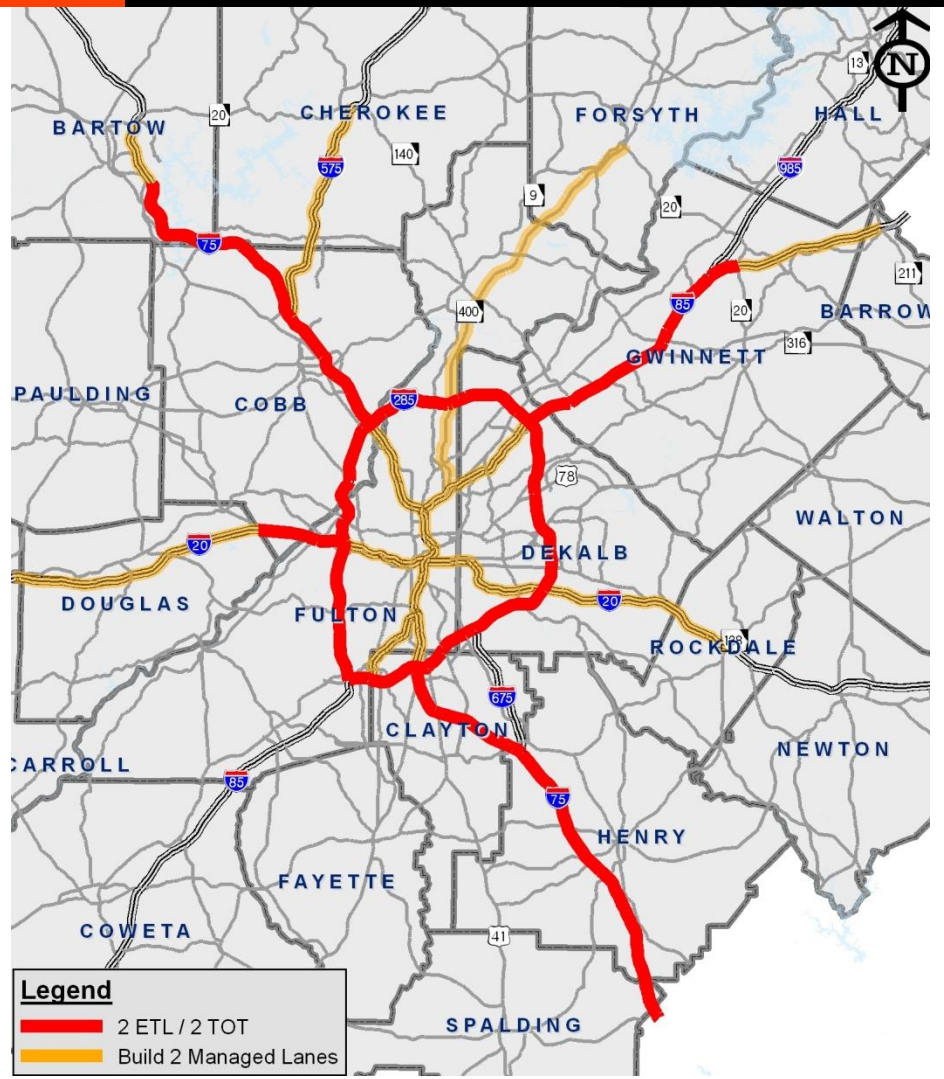


- Base Case
  - Same Corridors as the TOT Network
    - Except for portion of I-20 West
  - If Existing Lanes ≥ 4
    - Build 3 Mixed ETL Lanes
  - If Existing Lanes < 4
    - Build 2 Mixed ETL Lanes
  - Approximately 1,500 new lane miles



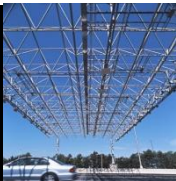


ETL – 2 Lanes + TOT – 2 Lanes Policy



- Base Case
  - Same Corridors as the TOT Network
  - Addition of 2 Lanes for ETL along the TOT Corridors
  - Approximately 1,800 new lane miles





Lane Methodology

# of Managed Lanes (Each Direction)	Policy	Number of General Purpose Lanes				
		2	3	4	5	6+
2	ETL	X	✓	✓	✓	✓
	TOT	X	✓	✓	✓	✓
	Mixed ETL	X	✓	✓	✓	✓
3	Mixed ETL	X	X	✓	✓	✓
2/2	ETL / TOT	TOL Study Recommendations				

- 3-lane Mixed ETL policy was assumed only where the number of general purpose lanes is 4 or more
- 2-lane Mixed ETL policy was assumed where there are 3 general purpose lanes
- Intent was to provide system lane balance between general purpose lanes and managed lanes



Traffic & Revenue
By Corridor

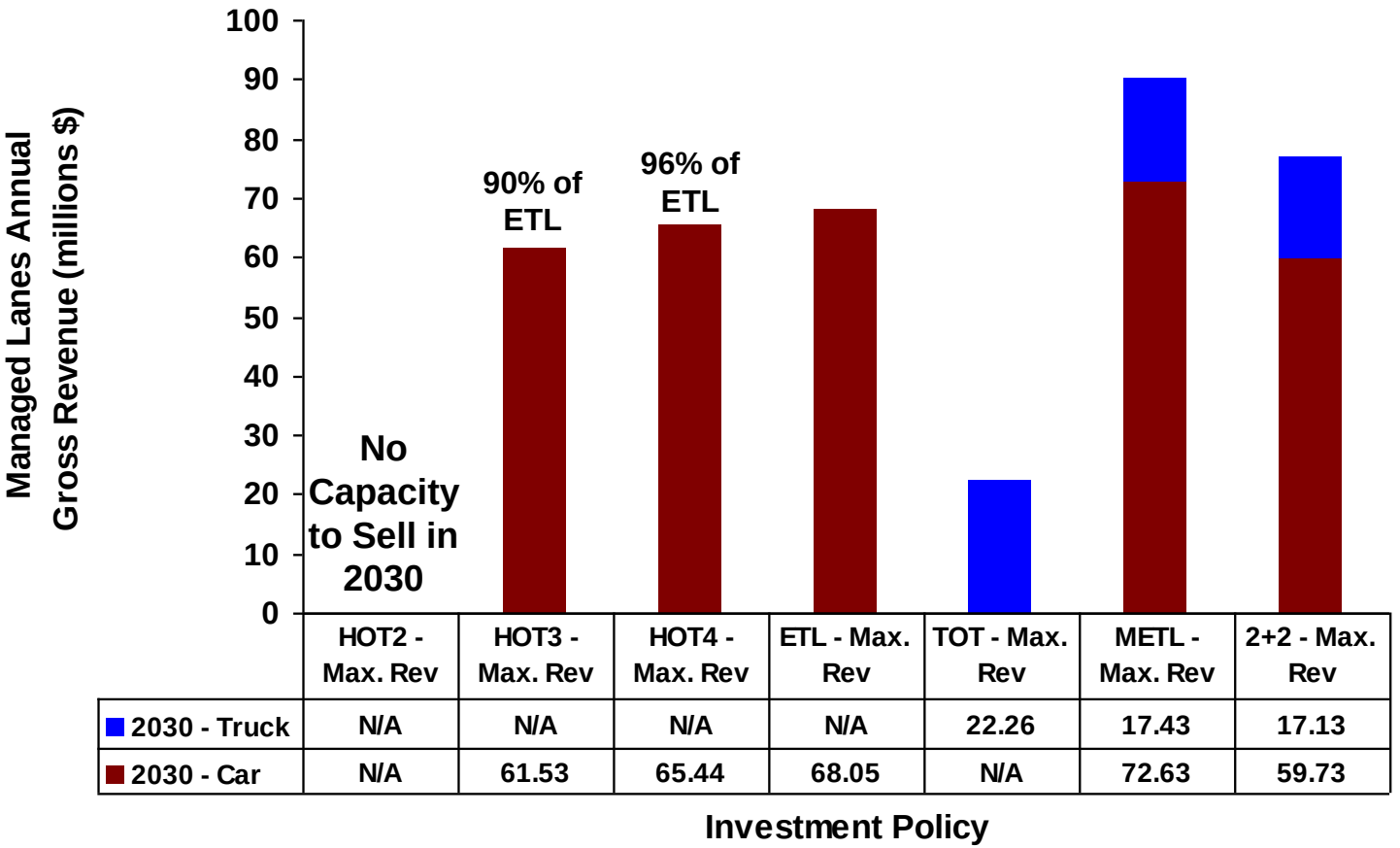


Corridors with Truck Only Lane Recommendations

Lane Configuration	Investment Policy Scenarios	I-285 Corridor	I-75 North and South Corridor	I-85 North Corridor	I-20 West (I-285 to Thornton Rd)
2-Lane Each Direction	HOT(HOT2+, HOT3+, HOT 4+)	√-Results Review	√-Results Review	√-Results Review	√-Results Review
	ETL	√-Results Review	√-Results Review	√-Results Review	√-Results Review
	TOT_V	√-Results Review	√-Results Review	√-Results Review	√-Results Review
3-Lane Each Direction	Mixed ETL	√-Results Review	√-Results Review	√-Results Review	√-Results Review
4-Lane Each Direction	ETL & TOT_V	√-Results Review	√-Results Review	√-Results Review	√-Results Review

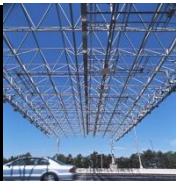


I-285 North Corridor – Max Revenue Forecast

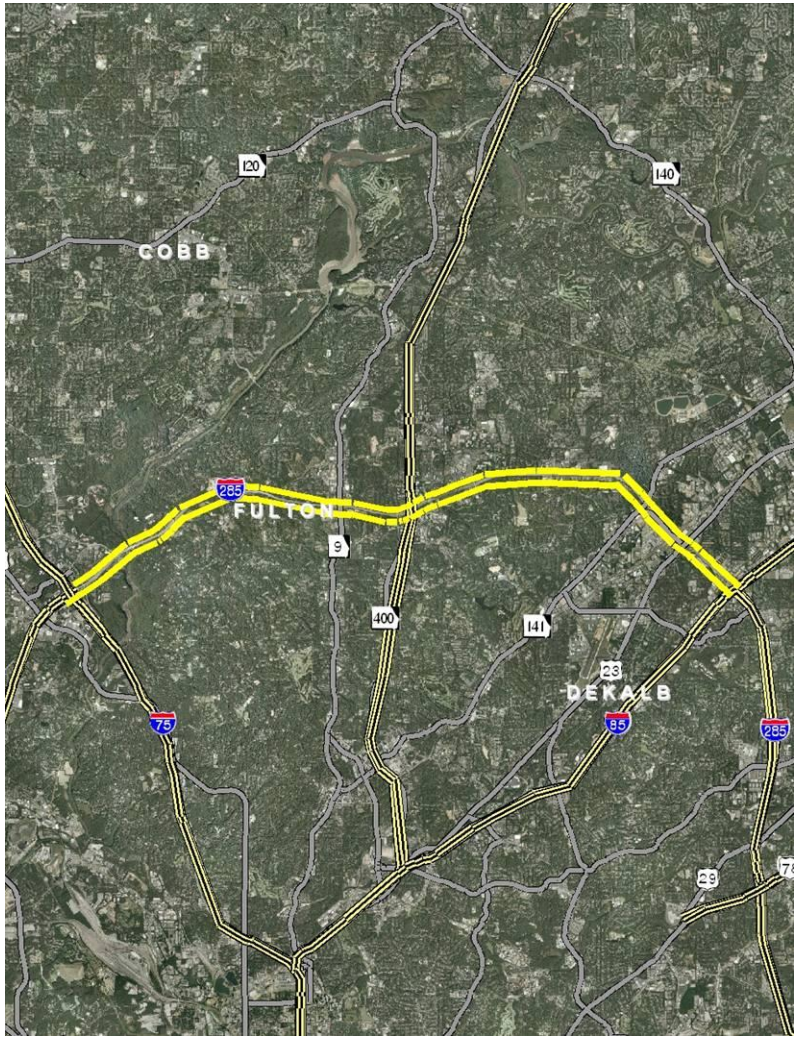


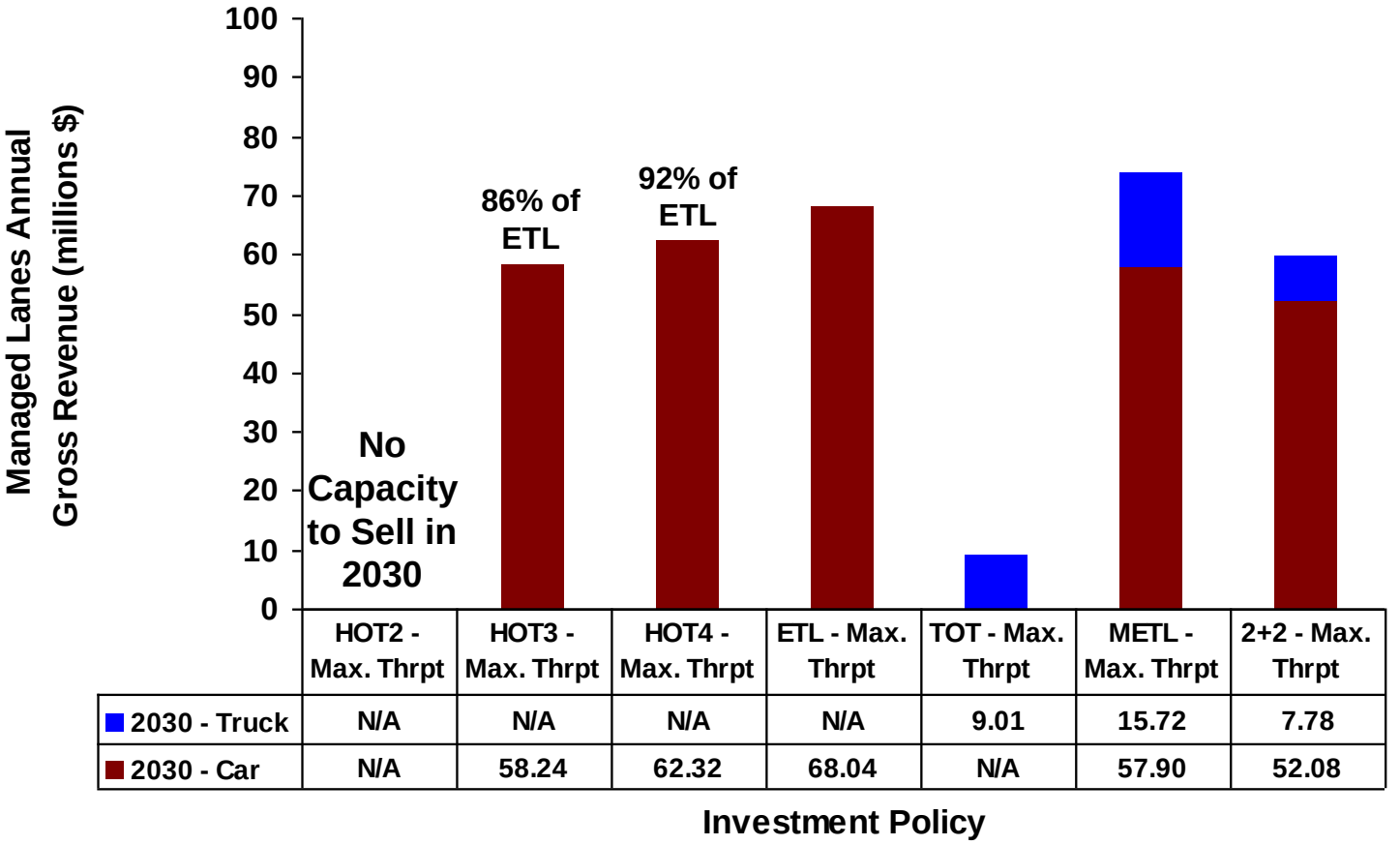
	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
2030 - Truck	N/A	N/A	N/A	N/A	22.26	17.43	17.13
2030 - Car	N/A	61.53	65.44	68.05	N/A	72.63	59.73

Distance ≈ 14 Miles



I-285 North Corridor – Max Throughput Forecast

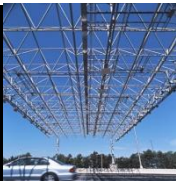




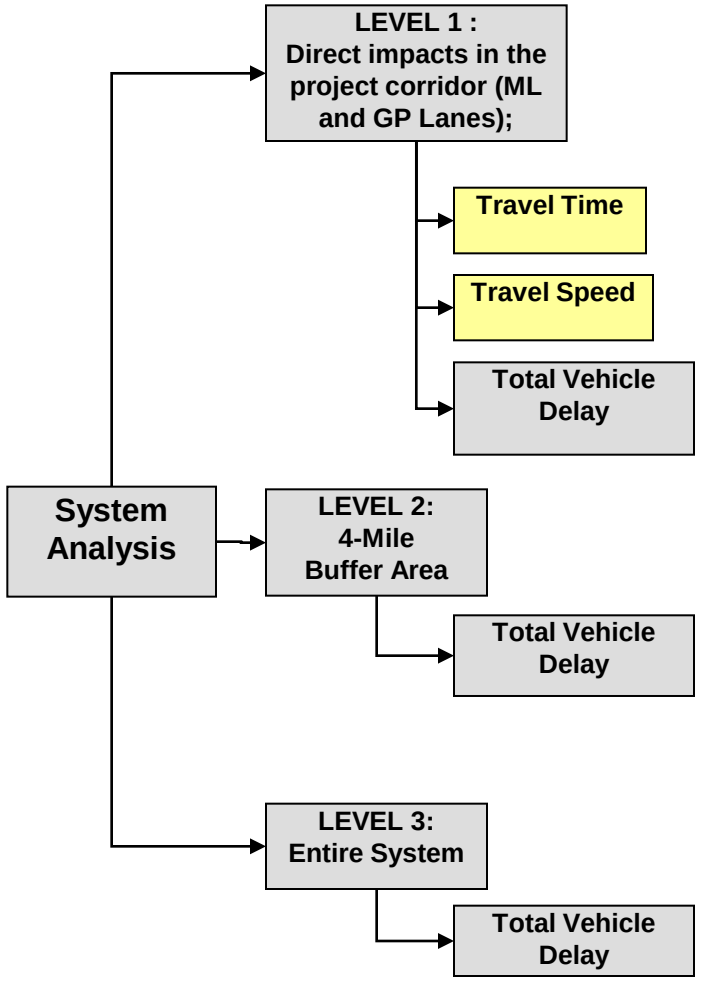
	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
2030 - Truck	N/A	N/A	N/A	N/A	9.01	15.72	7.78
2030 - Car	N/A	58.24	62.32	68.04	N/A	57.90	52.08

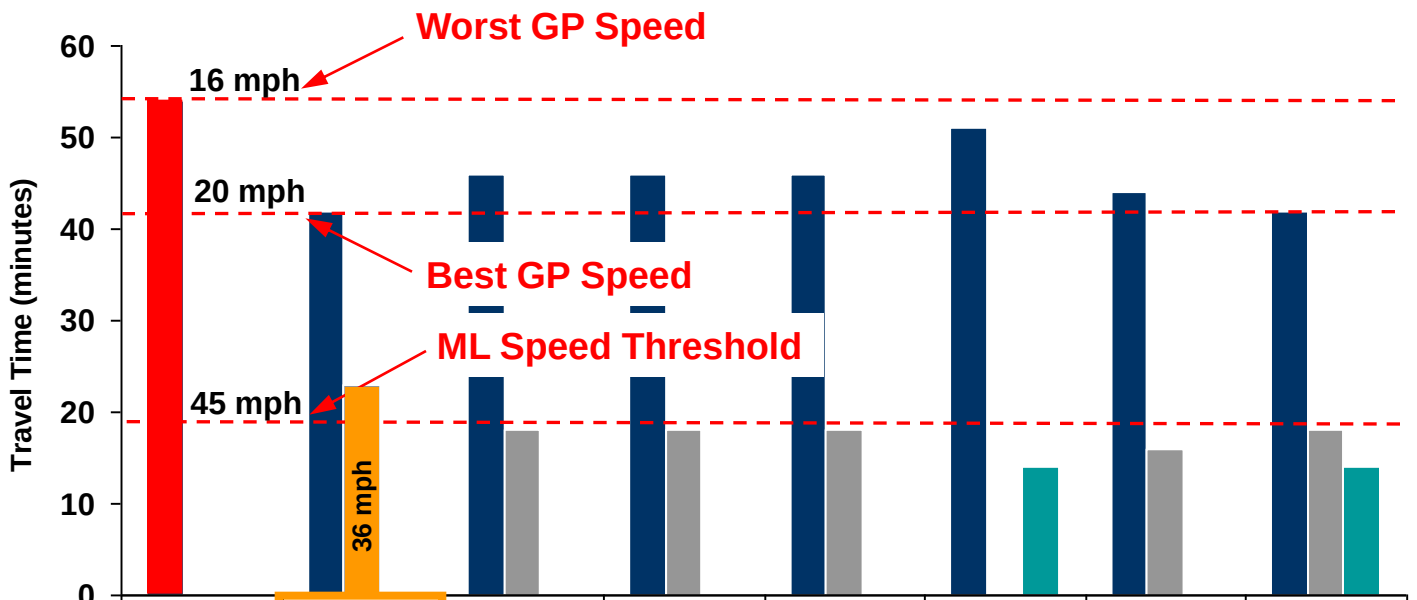
Distance ≈ 14 Miles





I-285 North Corridor
– Transportation User Benefits (2030 Max Revenue)





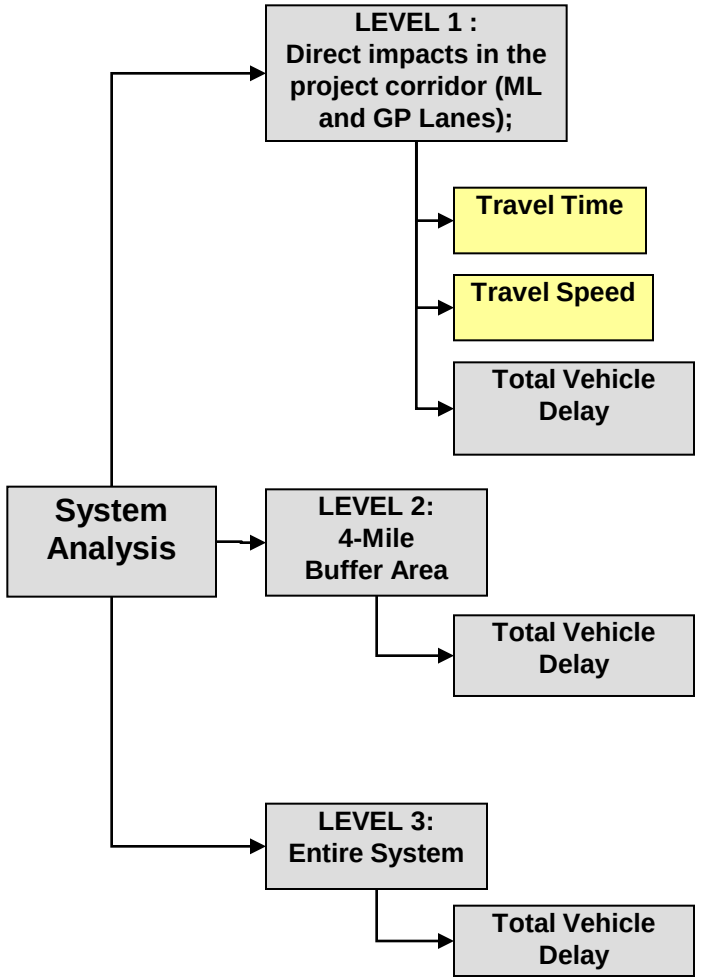
	No Project	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
GP Travel Time	54	42	46	46	46	51	44	42
ML Travel Time	N/A	23	18	18	18	N/A	16	18
TL Travel Time	N/A	N/A	N/A	N/A	N/A	14	N/A	14

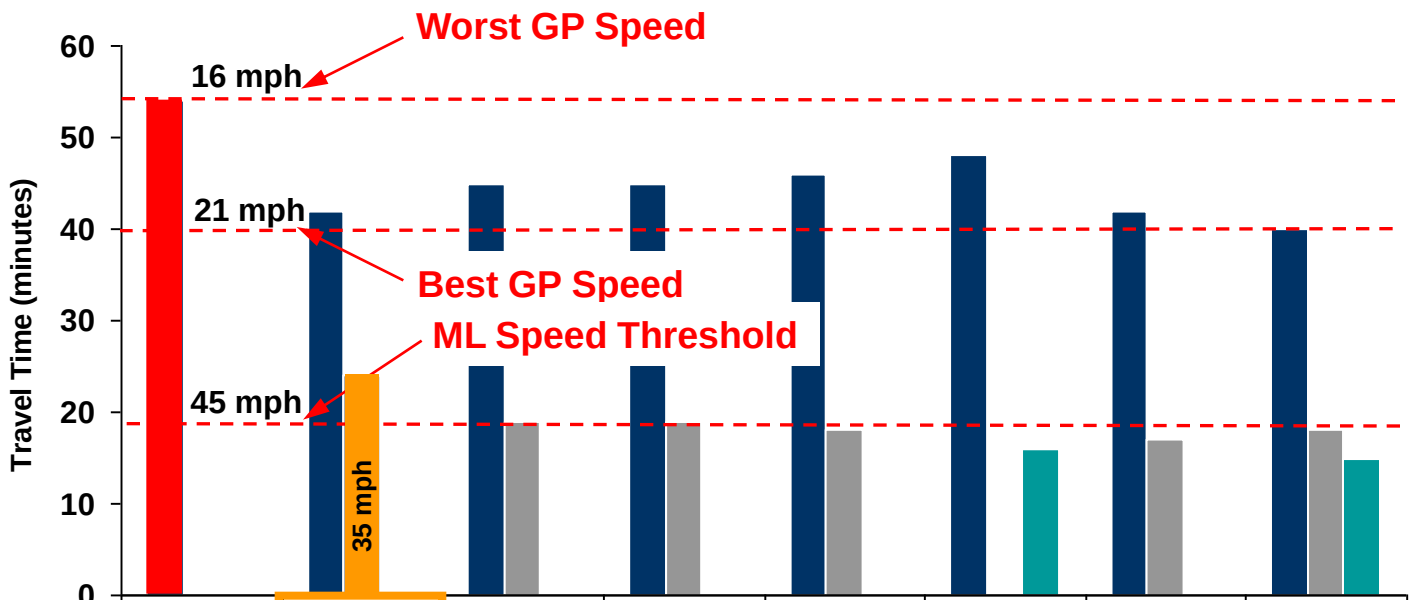
Investment Policy

- **Distance ≈ 14 Miles**
- **GP Travel Speed: 16 - 20 mph**
- **ML Travel Speed: 47 - 52 mph**
- **TL Travel Speed: 60 mph**



I-285 North Corridor
– Transportation User Benefits (2030 Max Throughput)





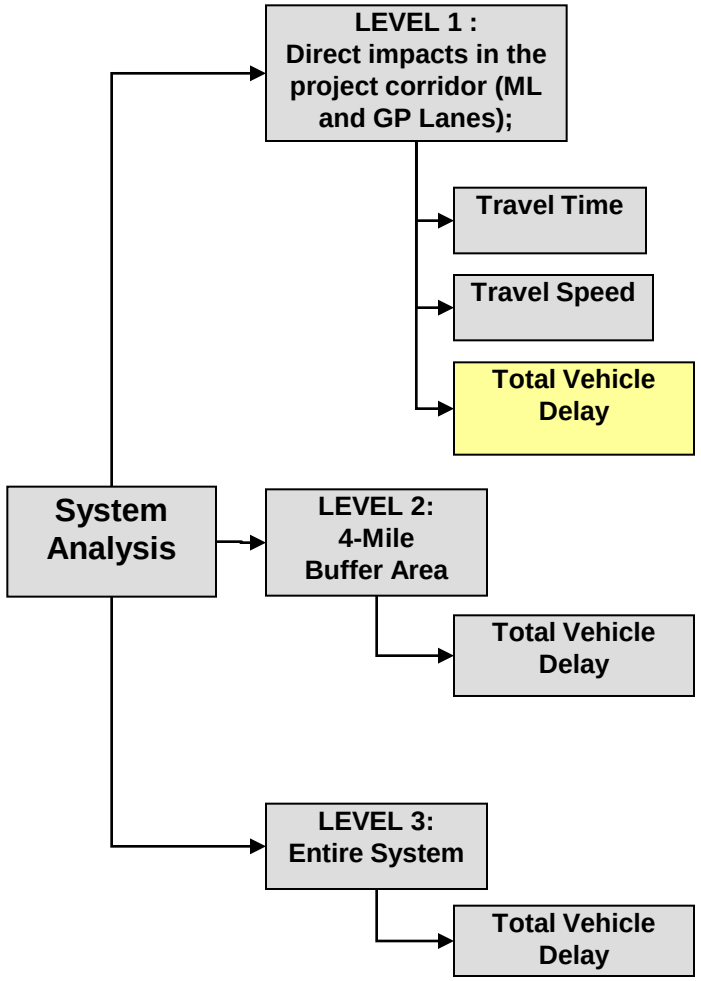
	No Project	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max Thrpt	2+2 - Max Thrpt
GP Travel Time	54	42	45	45	46	48	42	40
ML Travel Time	N/A	24	19	19	18	N/A	17	18
TL Travel Time	N/A	N/A	N/A	N/A	N/A	16	N/A	15

Investment Policy

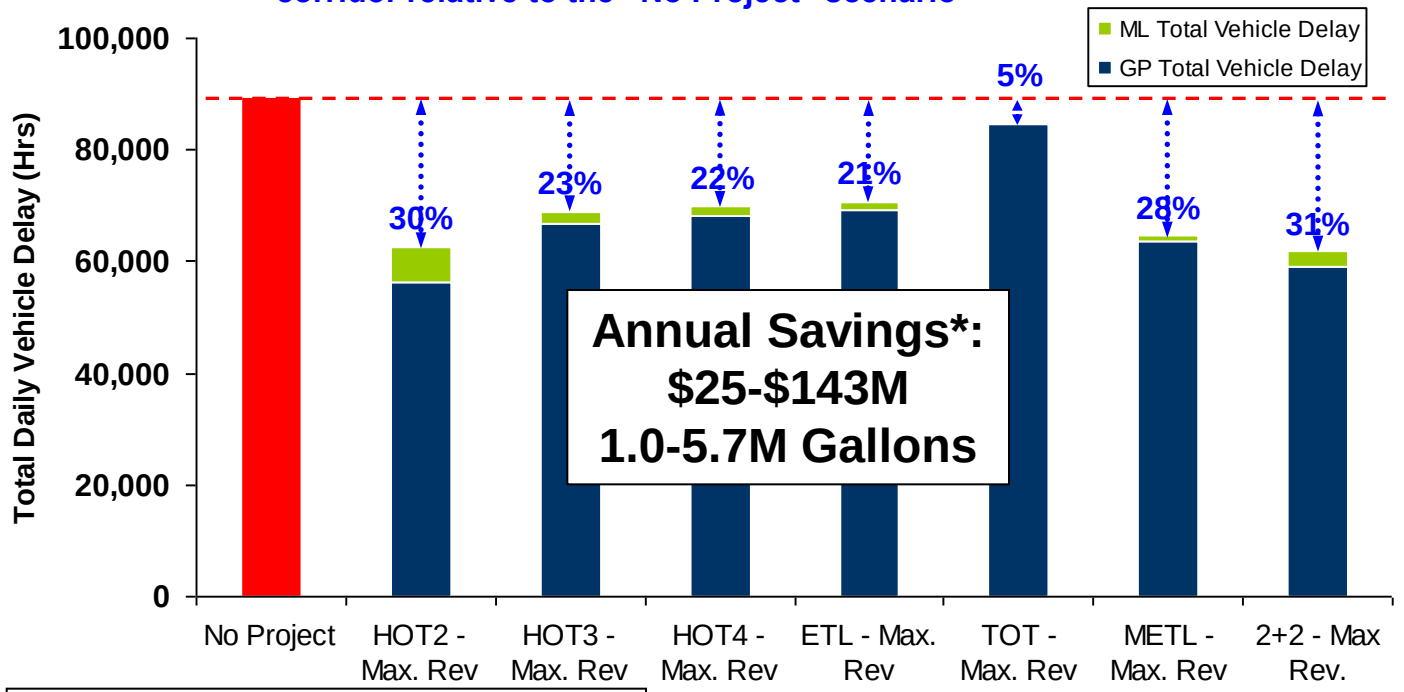
- **Distance ≈ 14 Miles**
- **GP Travel Speed: 16 - 21 mph**
- **ML Travel Speed: 45 - 49 mph**
- **TL Travel Speed: 52 - 56 mph**



I-285 North Corridor
– Transportation User Benefits (2030 Max Revenue)



Decrease in Total Daily Vehicle Delay along this corridor relative to the "No Project" scenario

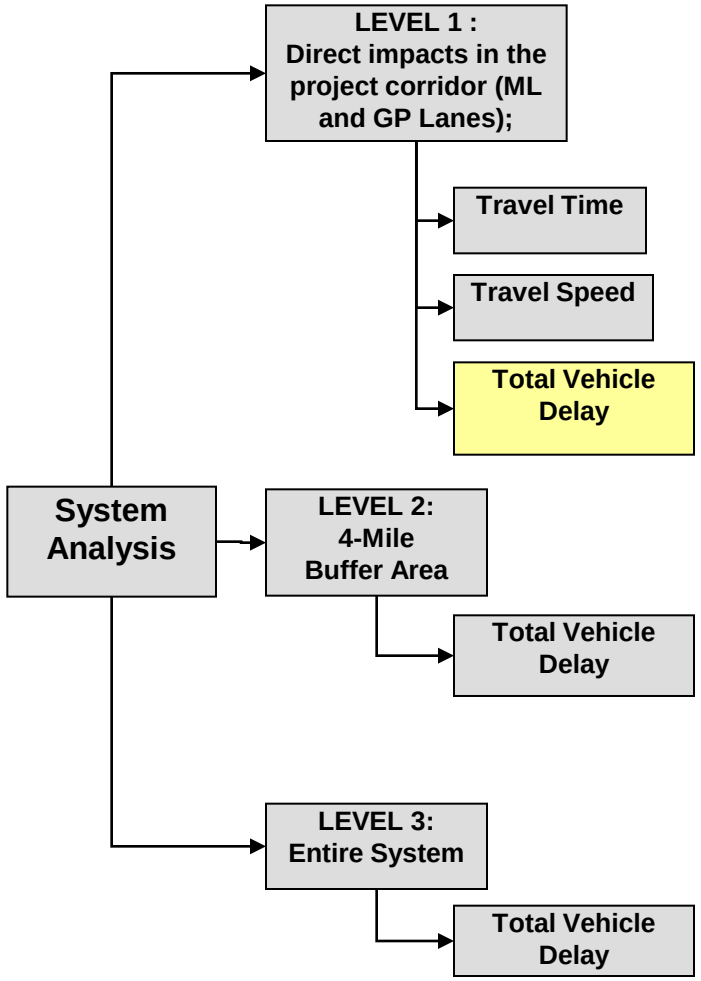


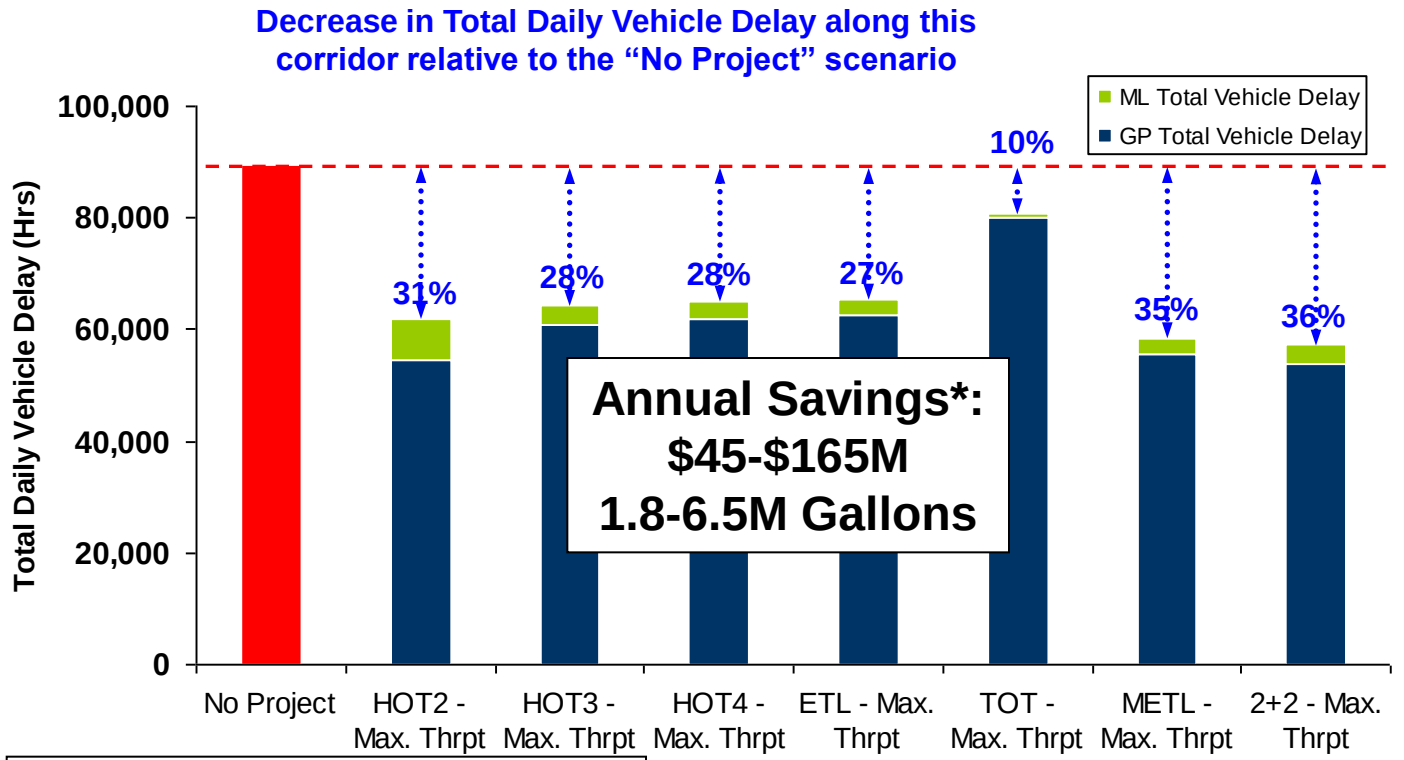
*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Revenue policy and high end of range associated with 2+2 Maximum Revenue policy.

Investment Policy

Distance ≈ 14 Miles

I-285 North Corridor – Transportation User Benefits (2030 Max Throughput)

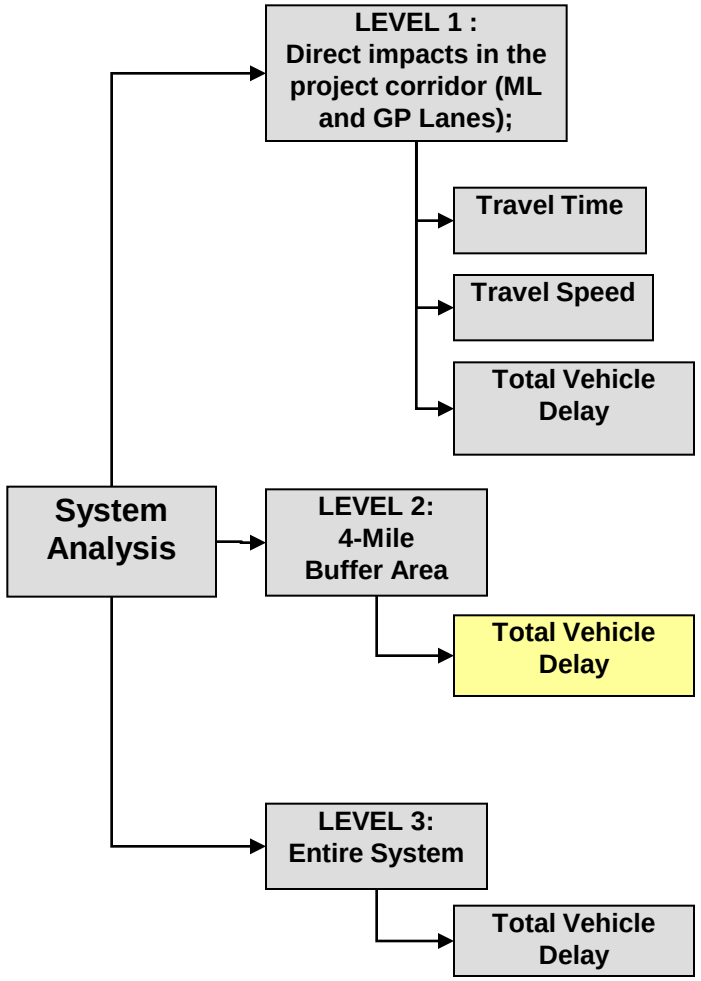


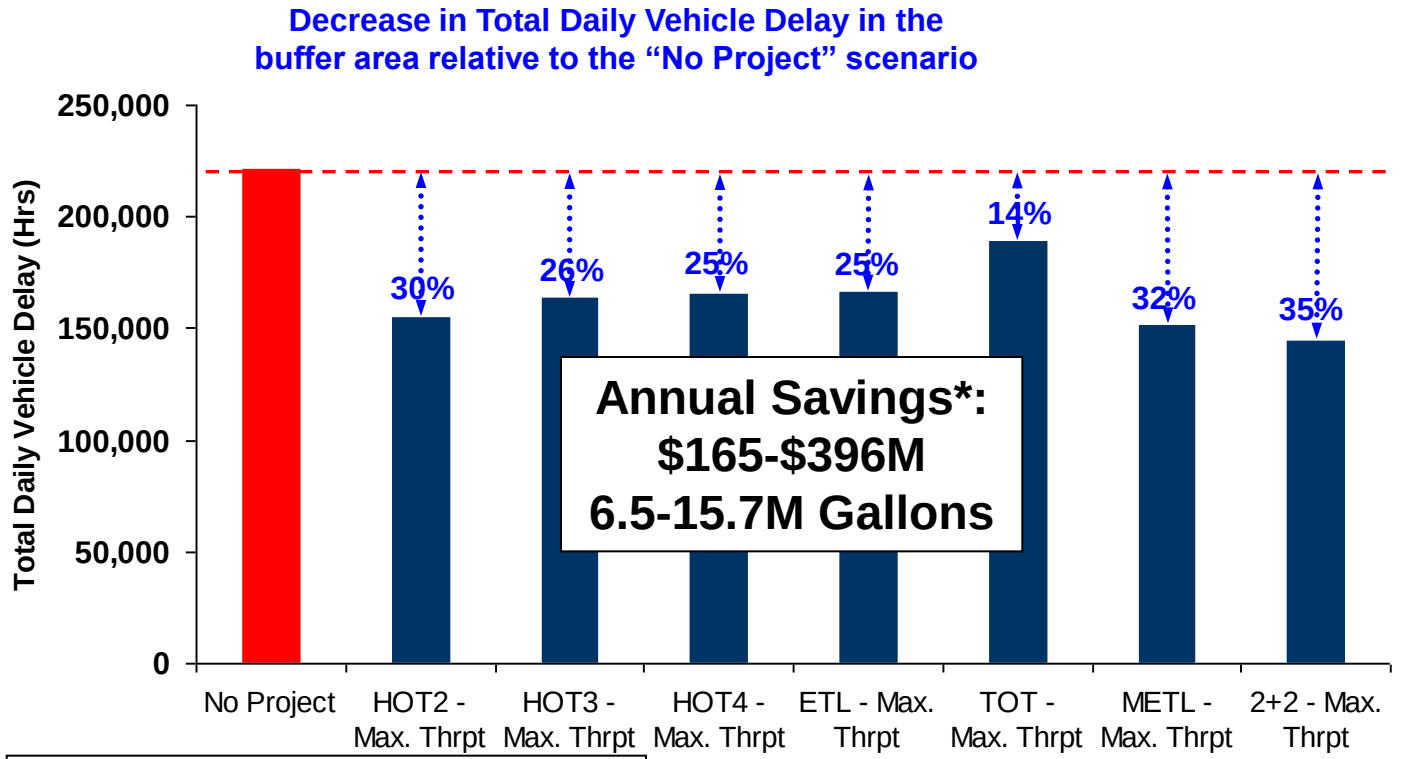


*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 14 Miles

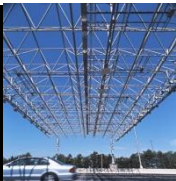
I-285 North Corridor
– Transportation User Benefits (2030 Max Throughput)



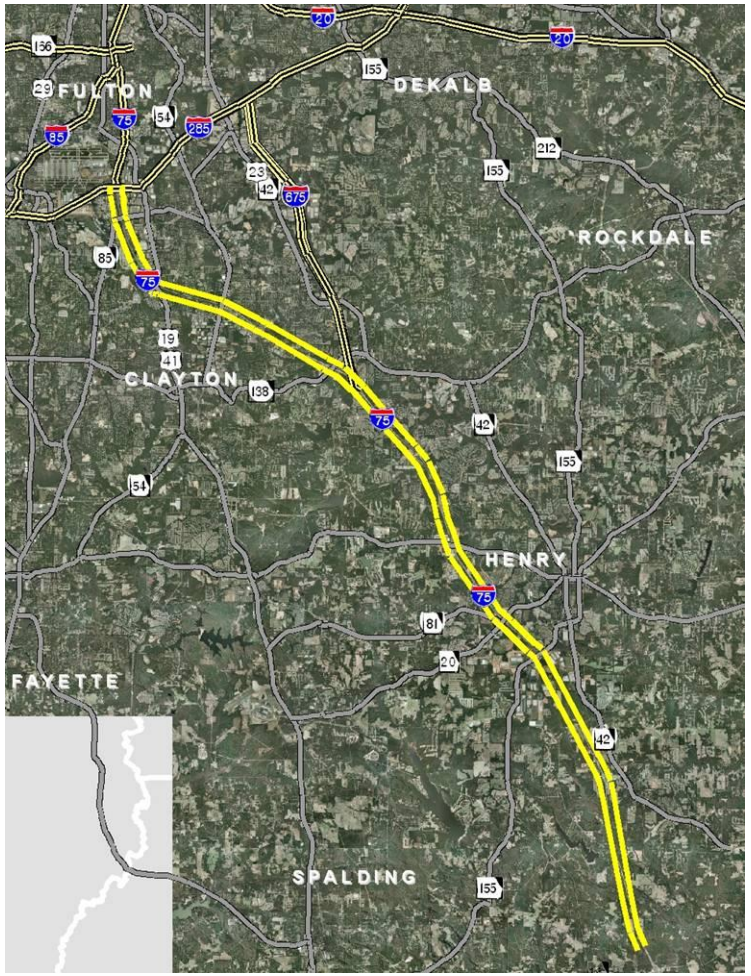


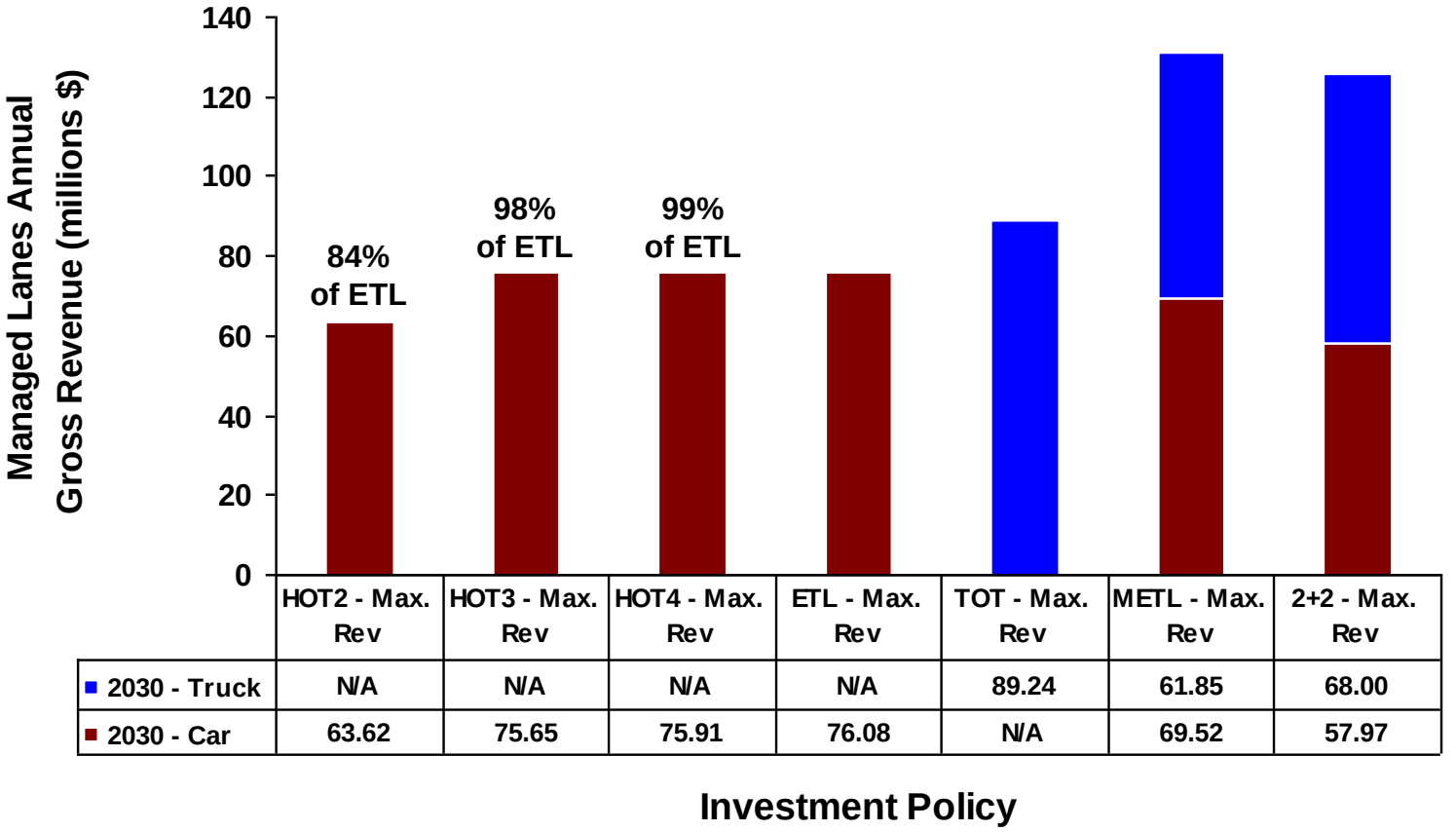
*Potential range of savings realized in this area, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 14 Miles



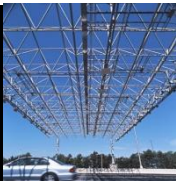
I-75 South Corridor – Max Revenue Forecast



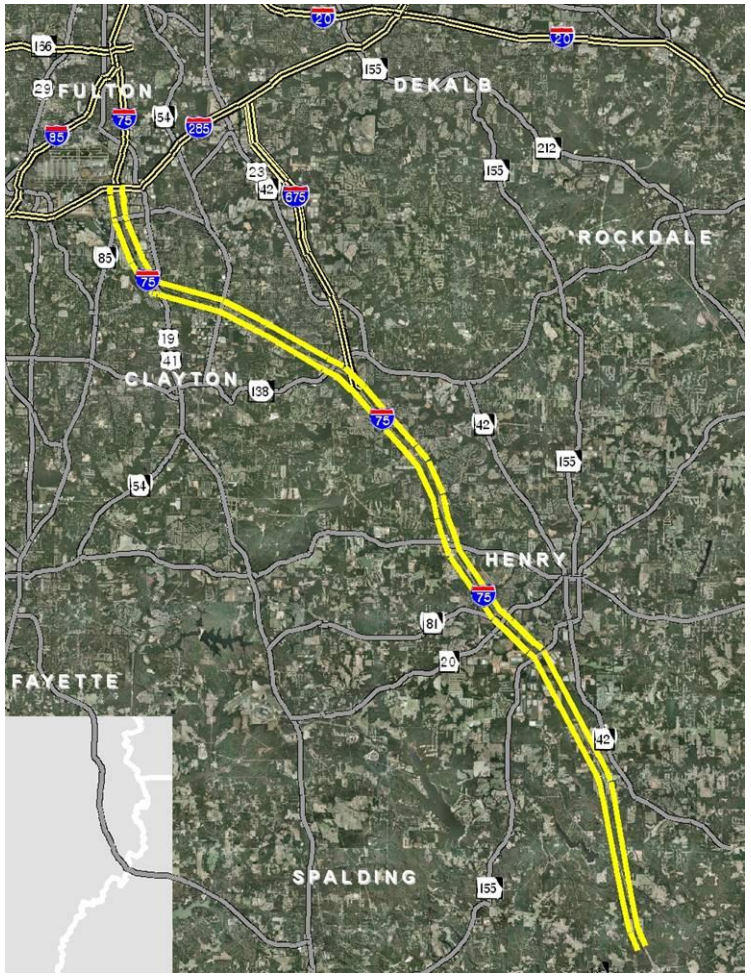


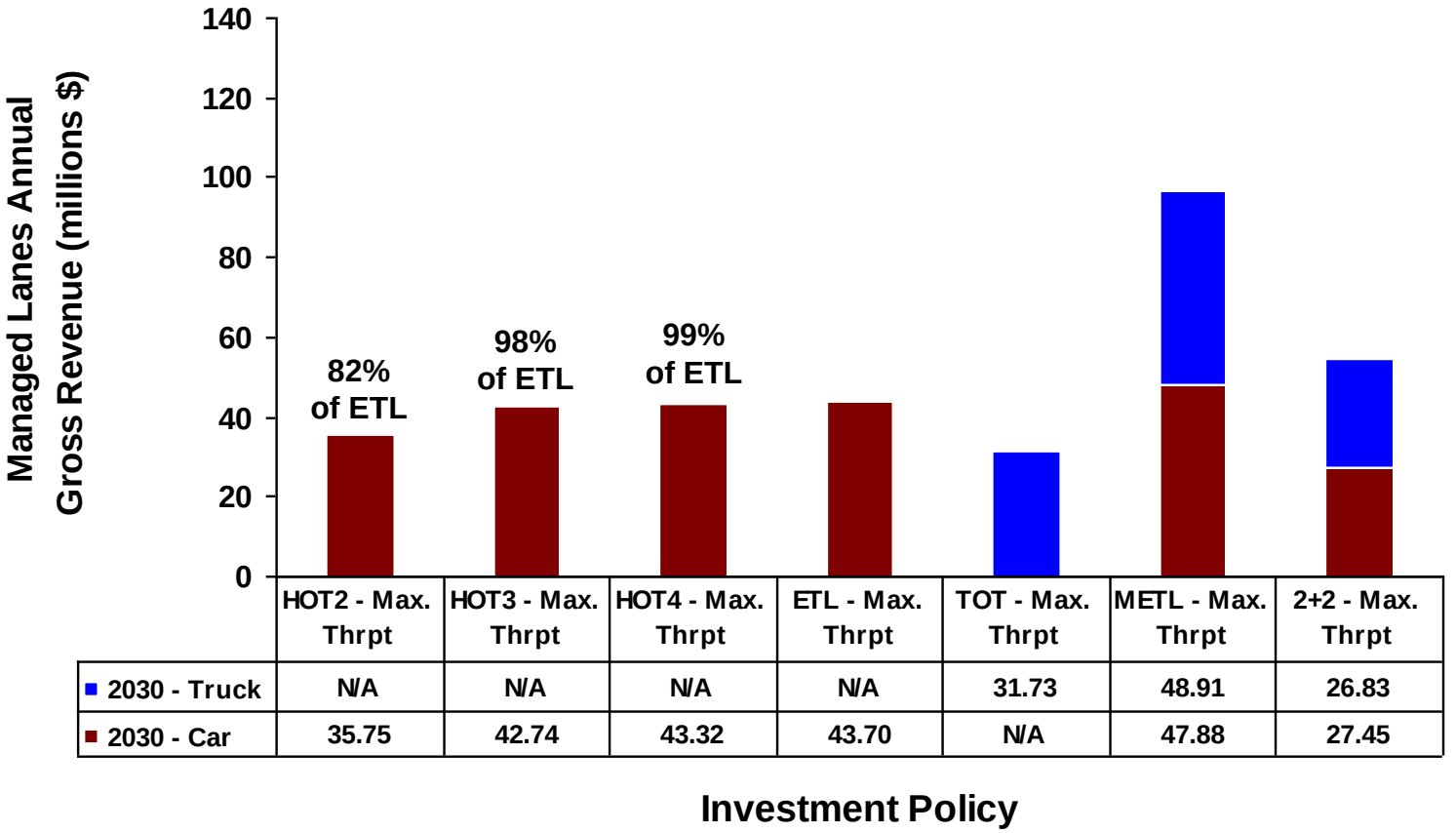
	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
2030 - Truck	N/A	N/A	N/A	N/A	89.24	61.85	68.00
2030 - Car	63.62	75.65	75.91	76.08	N/A	69.52	57.97

Distance ≈ 34 Miles



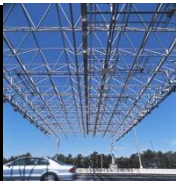
I-75 South Corridor – Max Throughput Forecast



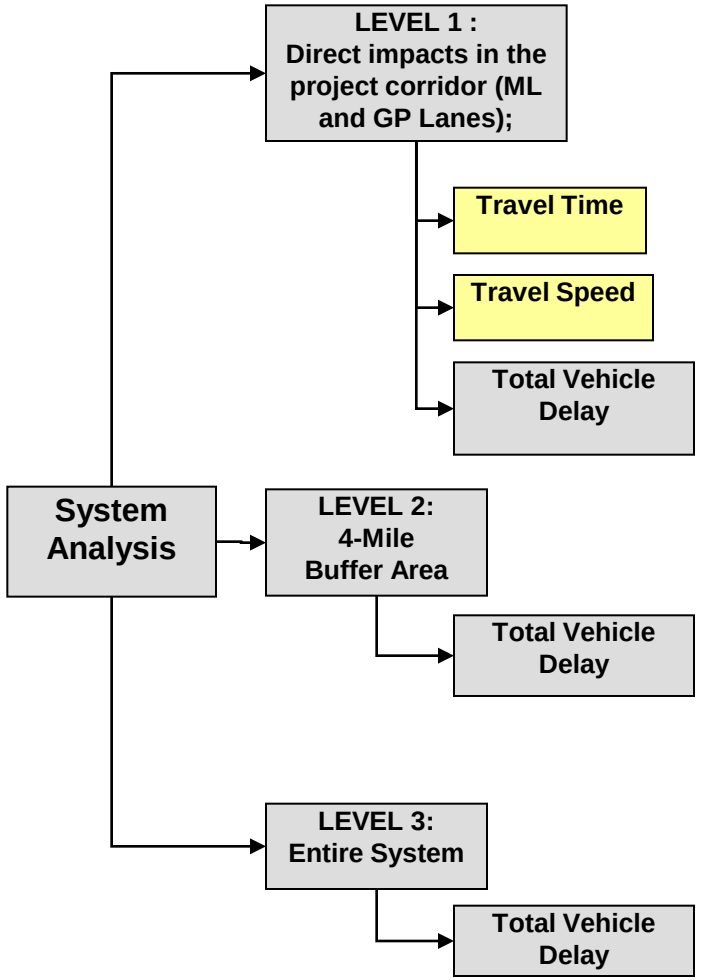


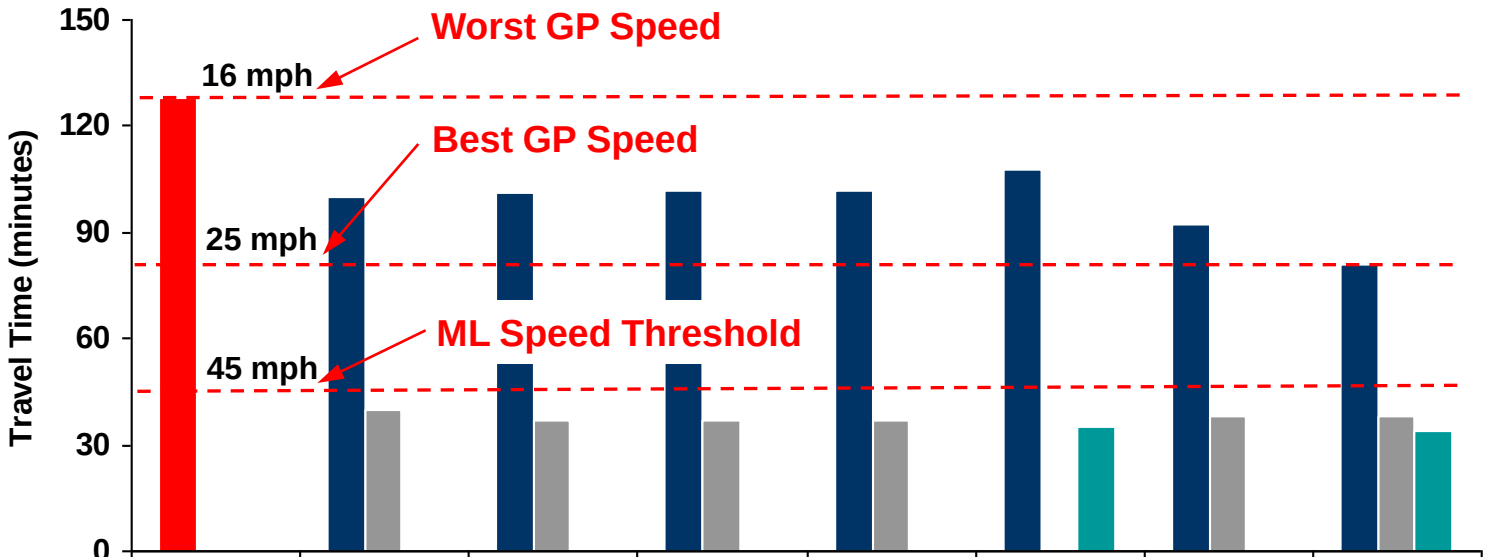
	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
2030 - Truck	N/A	N/A	N/A	N/A	31.73	48.91	26.83
2030 - Car	35.75	42.74	43.32	43.70	N/A	47.88	27.45

Distance ≈ 34 Miles



I-75 South Corridor
– Transportation User Benefits (2030 Max Revenue)





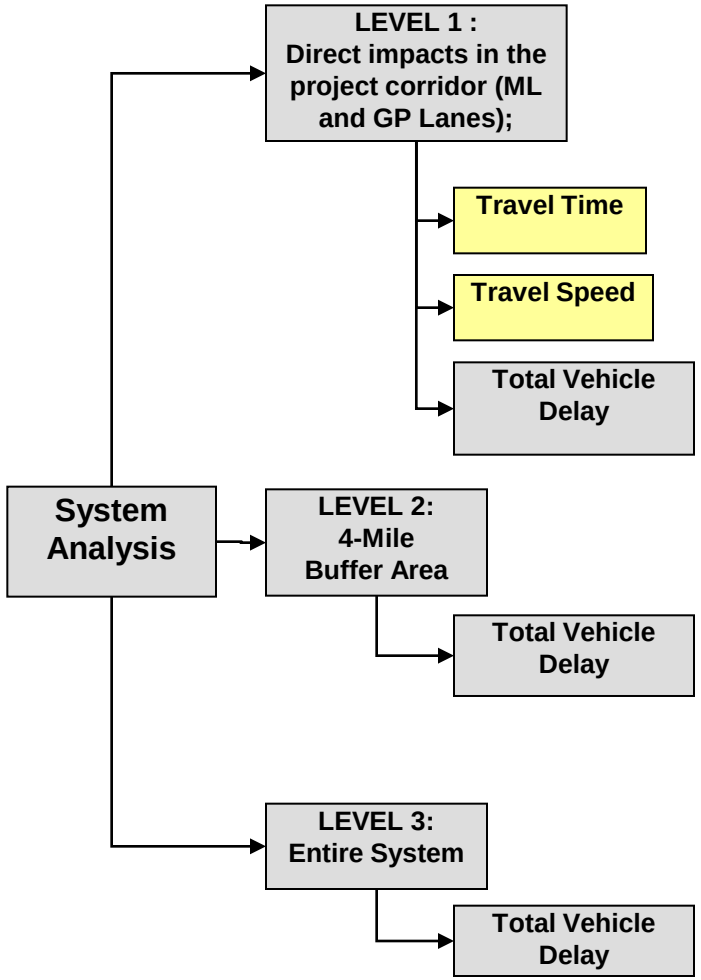
	No Project	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
GP Travel Time	128	100	101	102	102	108	92	81
ML Travel Time	N/A	40	37	37	37	N/A	38	38
TL Travel Time	N/A	N/A	N/A	N/A	N/A	35	N/A	34

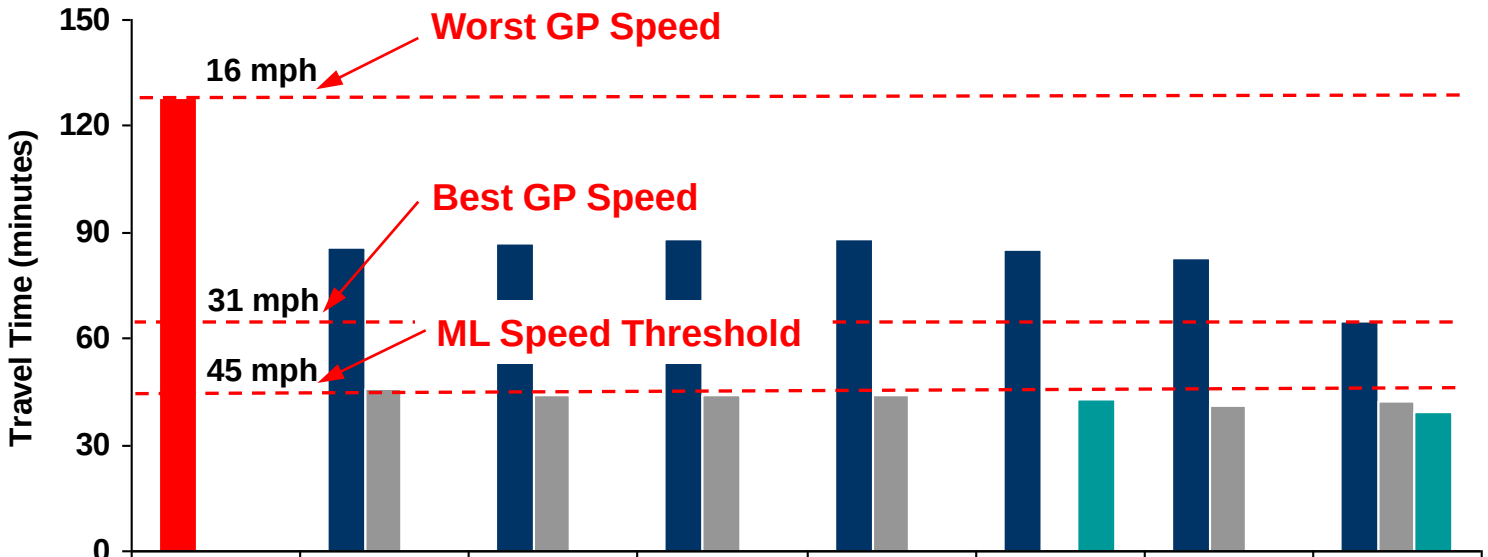
Investment Policy

- **Distance ≈ 34 Miles**
- **GP Travel Speed: 16 - 25 mph**
- **ML Travel Speed: 51 - 55 mph**
- **TL Travel Speed: 58 - 60 mph**



I-75 South Corridor
– Transportation User Benefits (2030 Max Throughput)





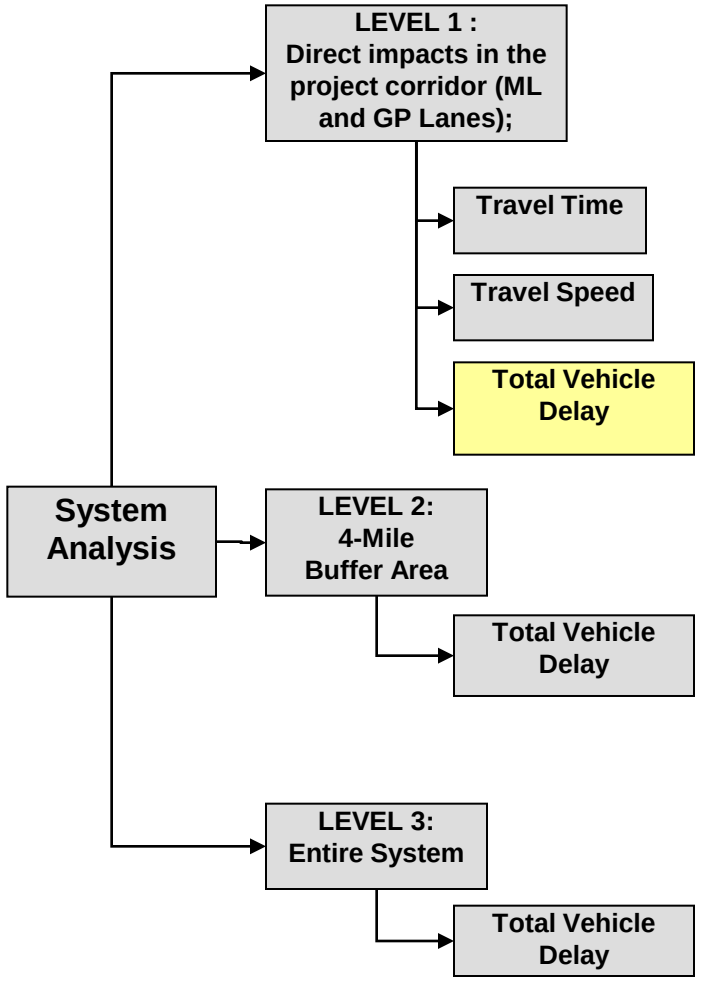
	No Project	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
GP Travel Time	128	86	87	88	88	85	83	65
ML Travel Time	N/A	46	44	44	44	N/A	41	42
TL Travel Time	N/A	N/A	N/A	N/A	N/A	43	N/A	39

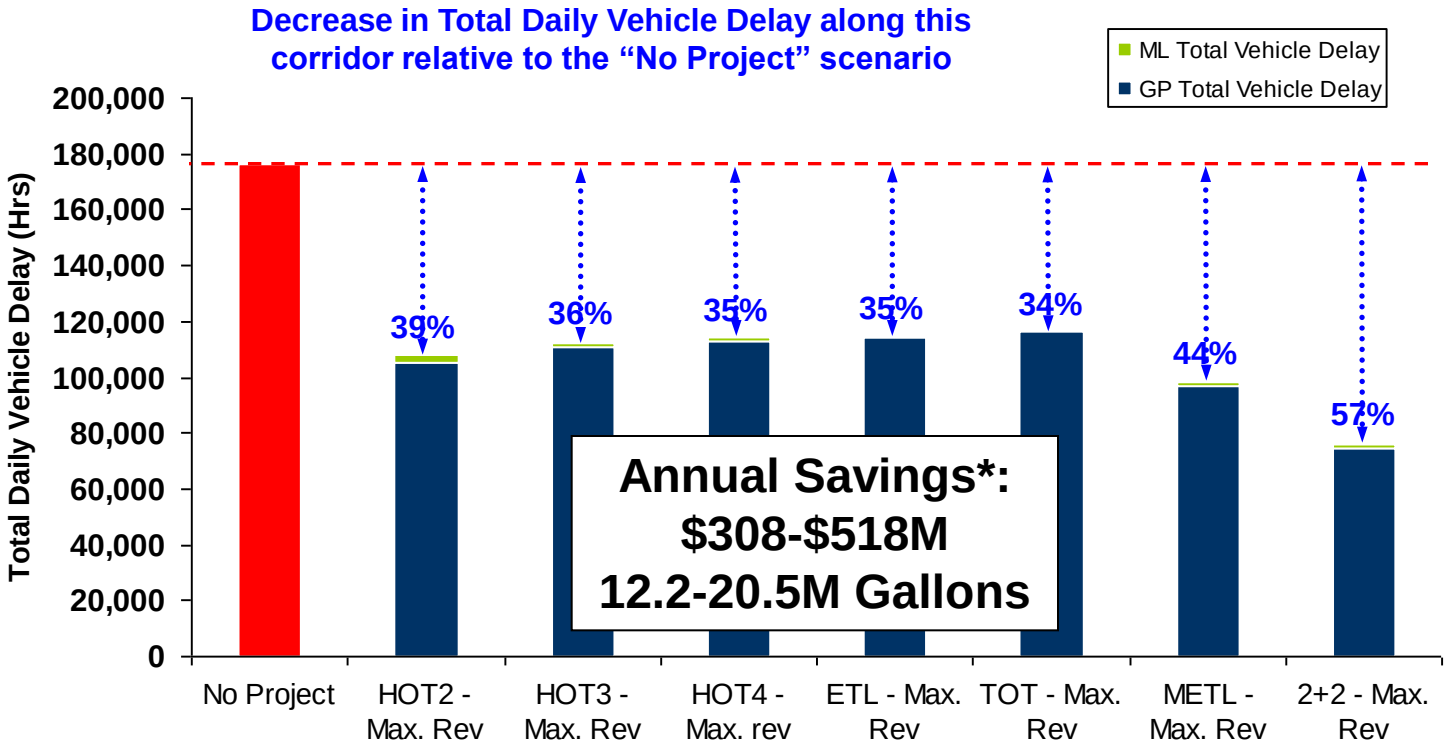
Investment Policy

- **Distance ≈ 34 Miles**
- **GP Travel Speed: 16 - 31 mph**
- **ML Travel Speed: 45 - 50 mph**
- **TL Travel Speed: 47 - 52 mph**



I-75 South Corridor
– Transportation User Benefits (2030 Max Revenue)

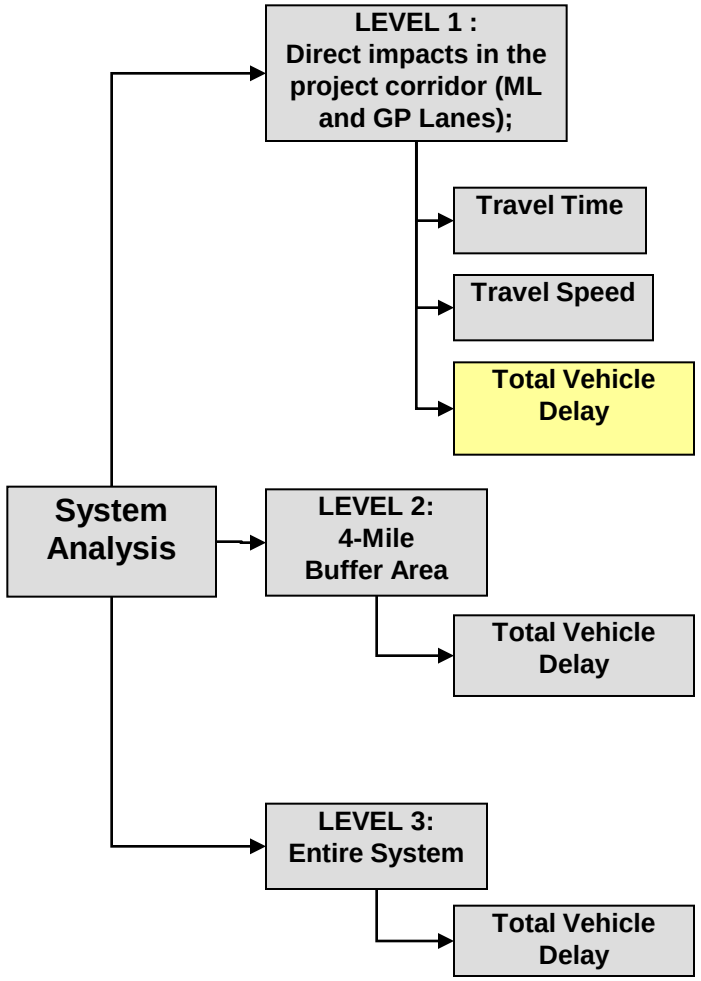


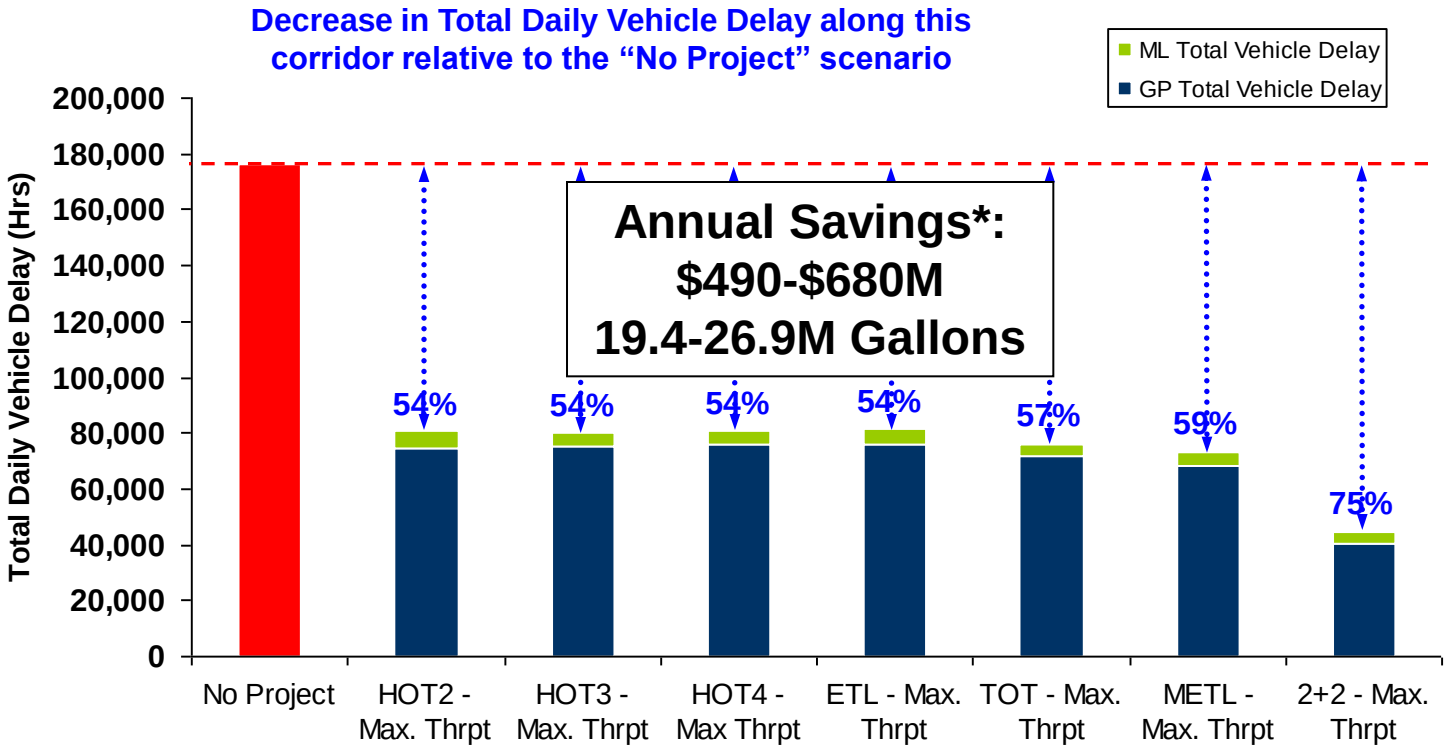


*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Revenue policy and high end of range associated with 2+2 Maximum Revenue policy.

Distance ≈ 34 Miles

I-75 South Corridor
– Transportation User Benefits (2030 Max Throughput)

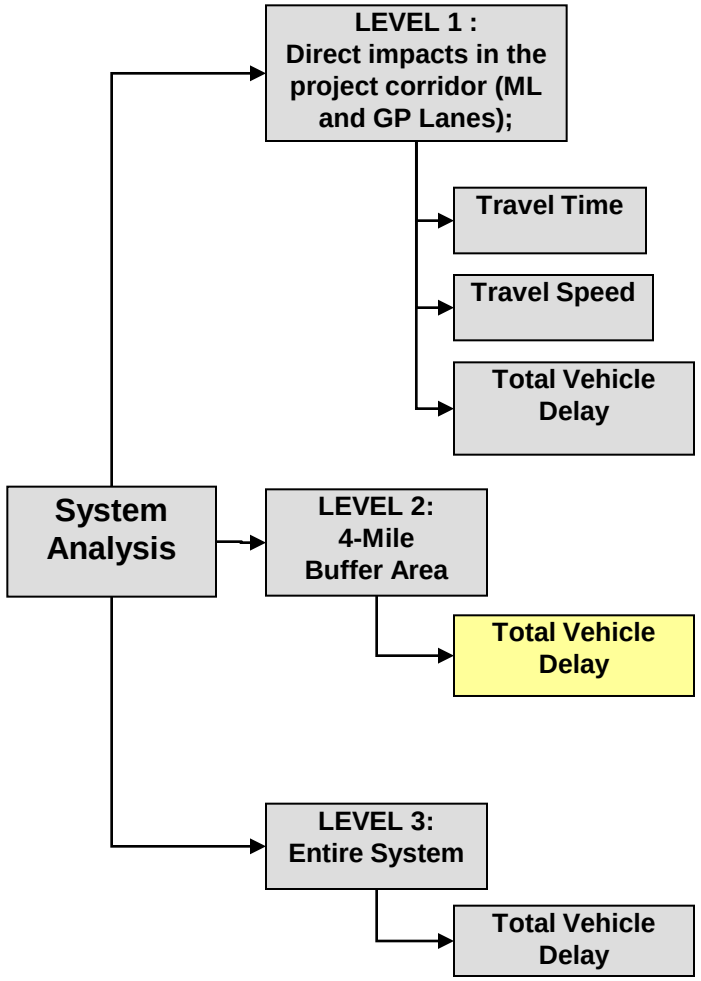


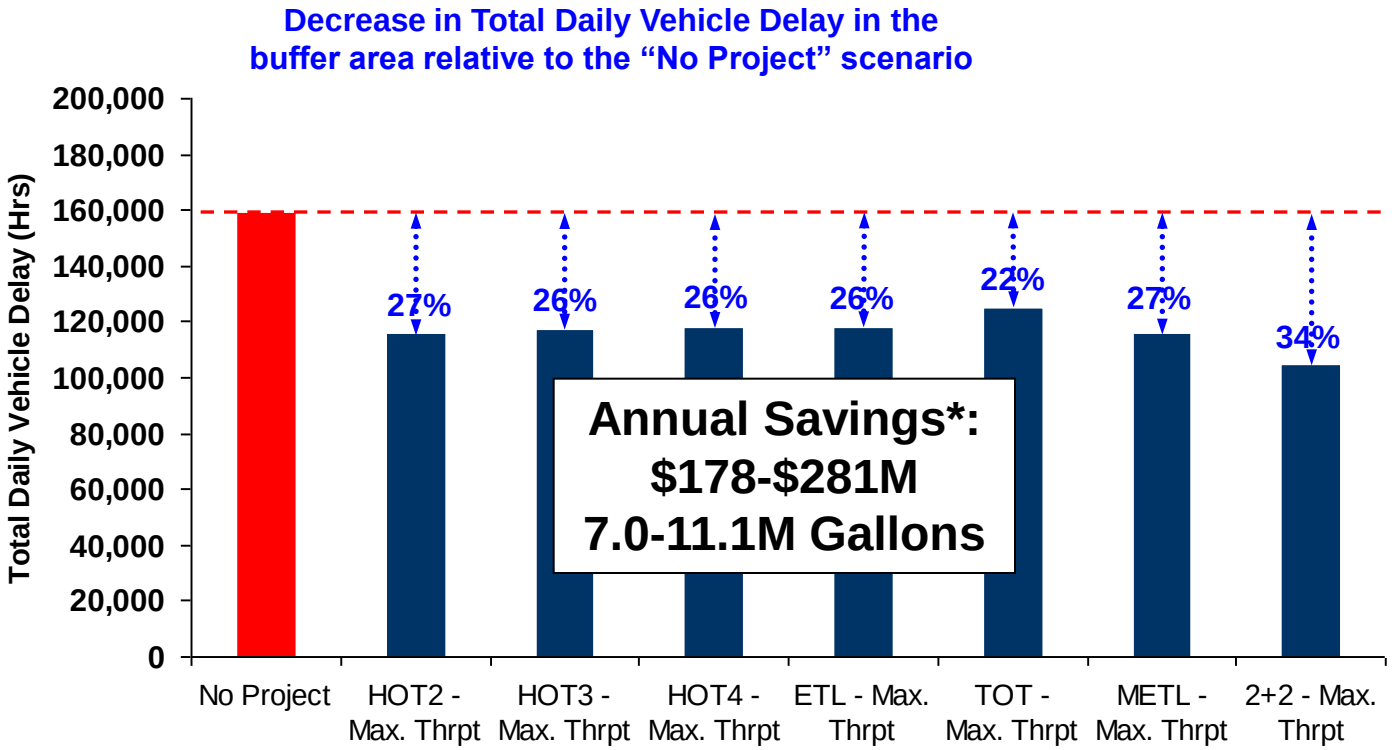


*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with ETL Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 34 Miles

I-75 South Corridor
– Transportation User Benefits (2030 Max Throughput)

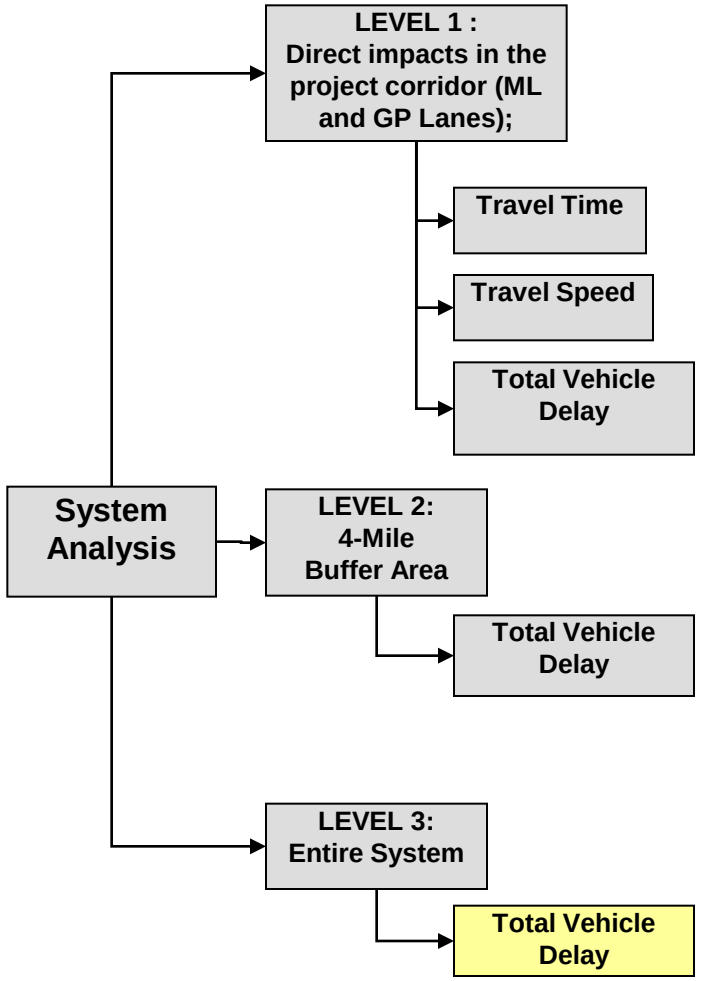


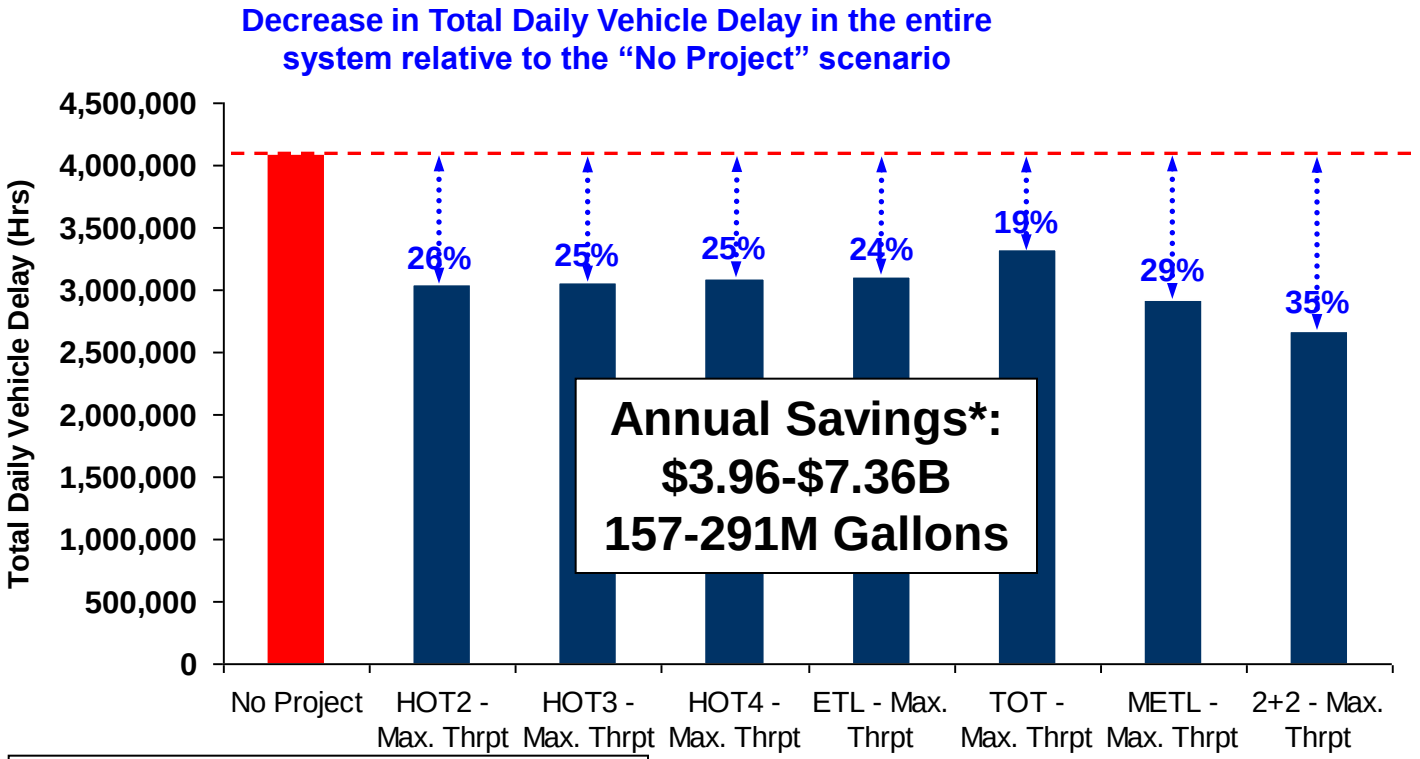


*Potential range of savings realized in this area, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 34 Miles

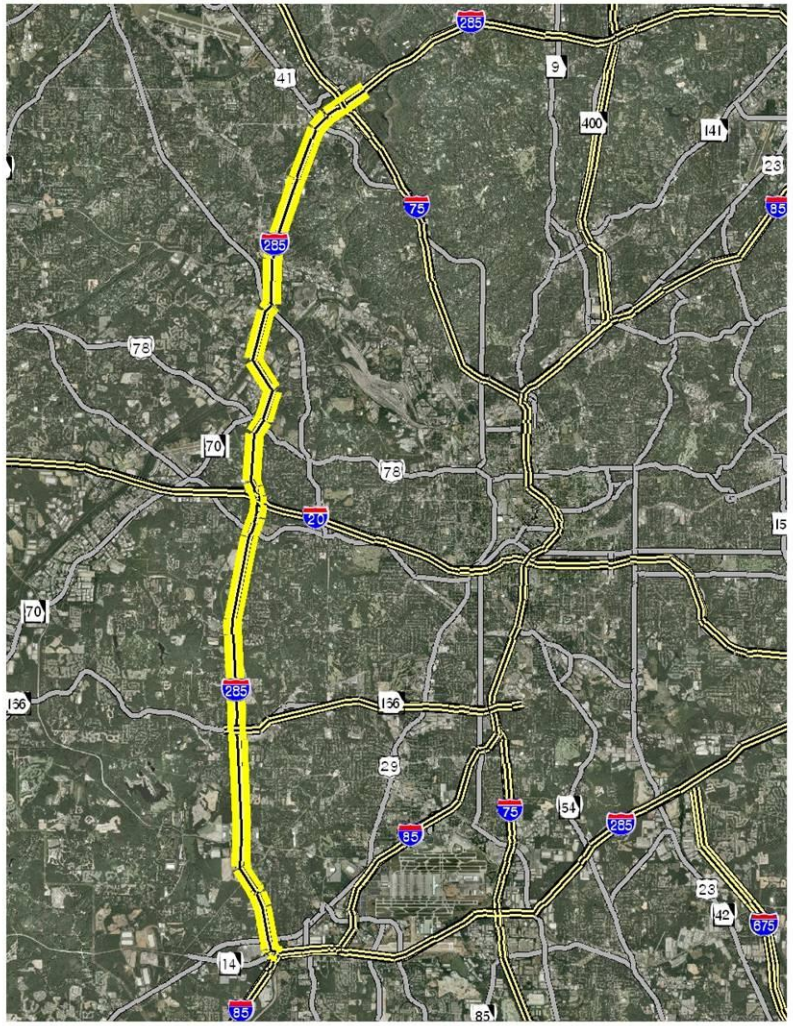
Entire System – Transportation User Benefits (2030 Max Throughput)

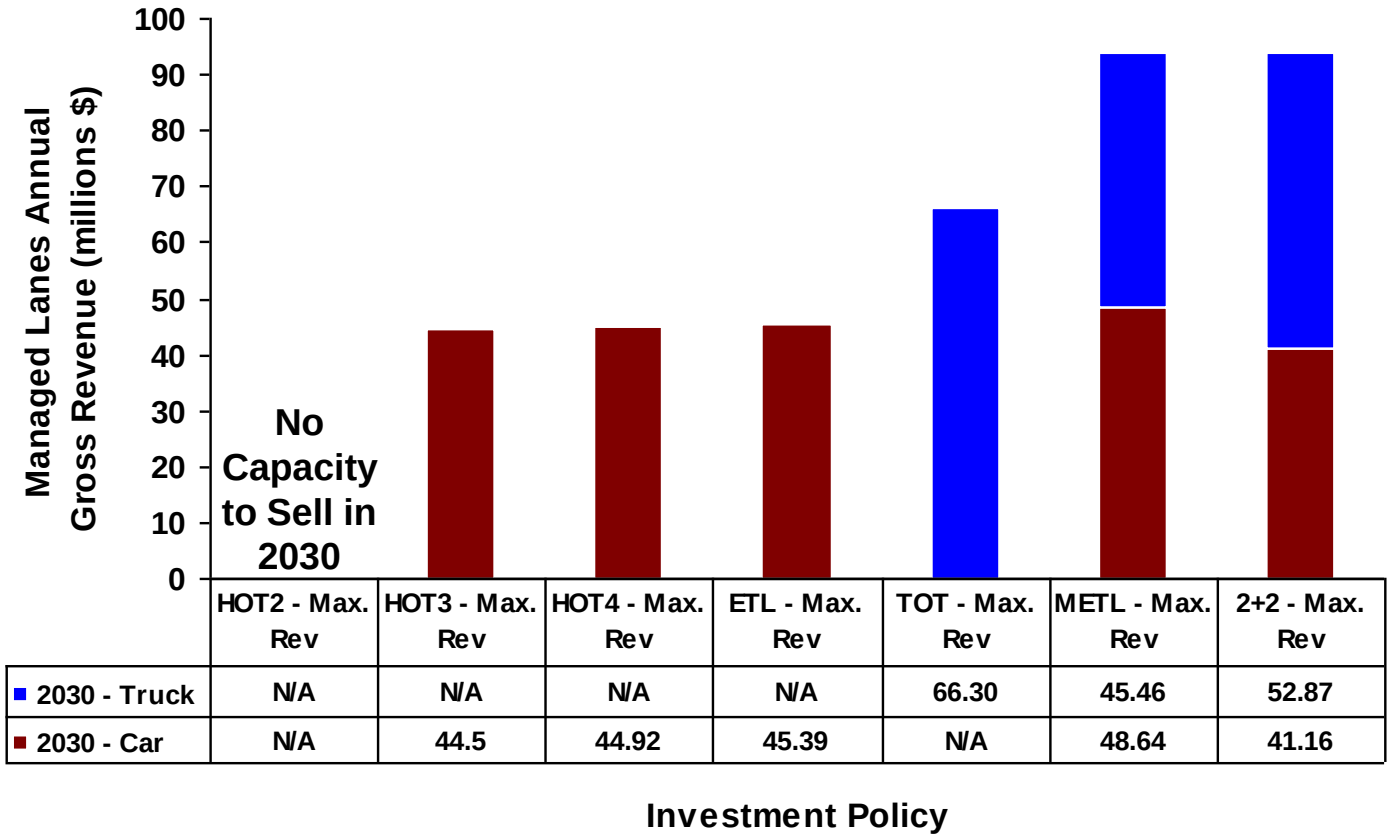




*Potential range of savings realized in this area, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

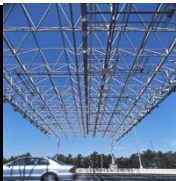
I-285 West Corridor – Max Revenue Forecast



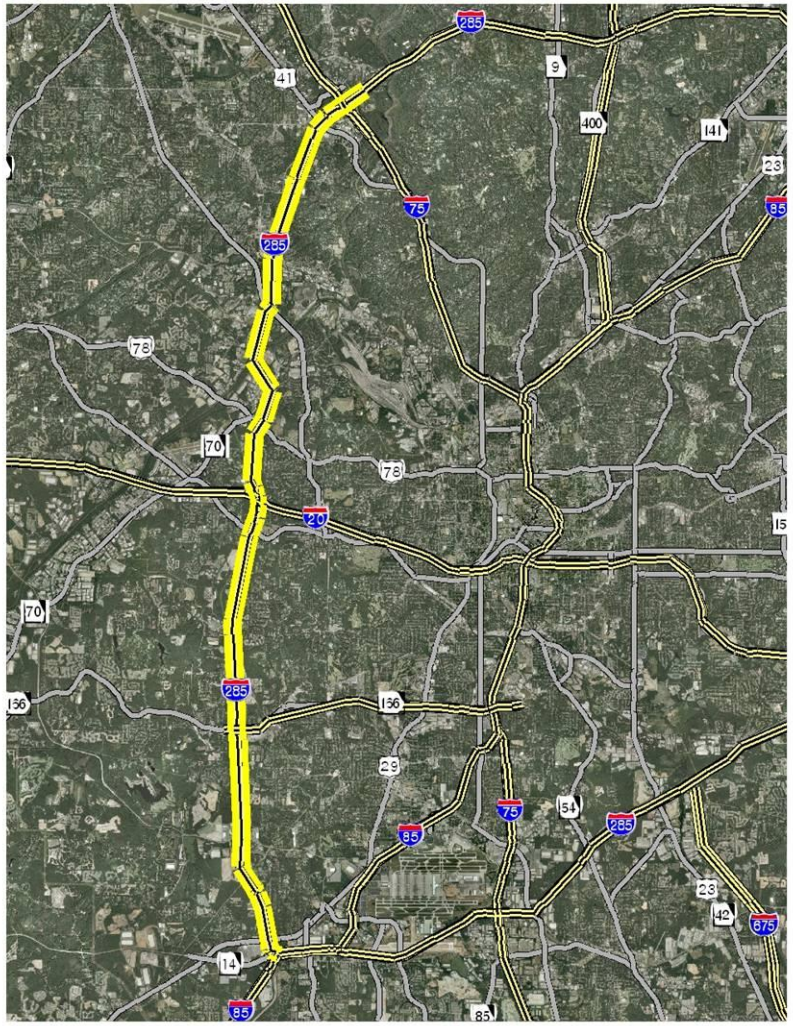


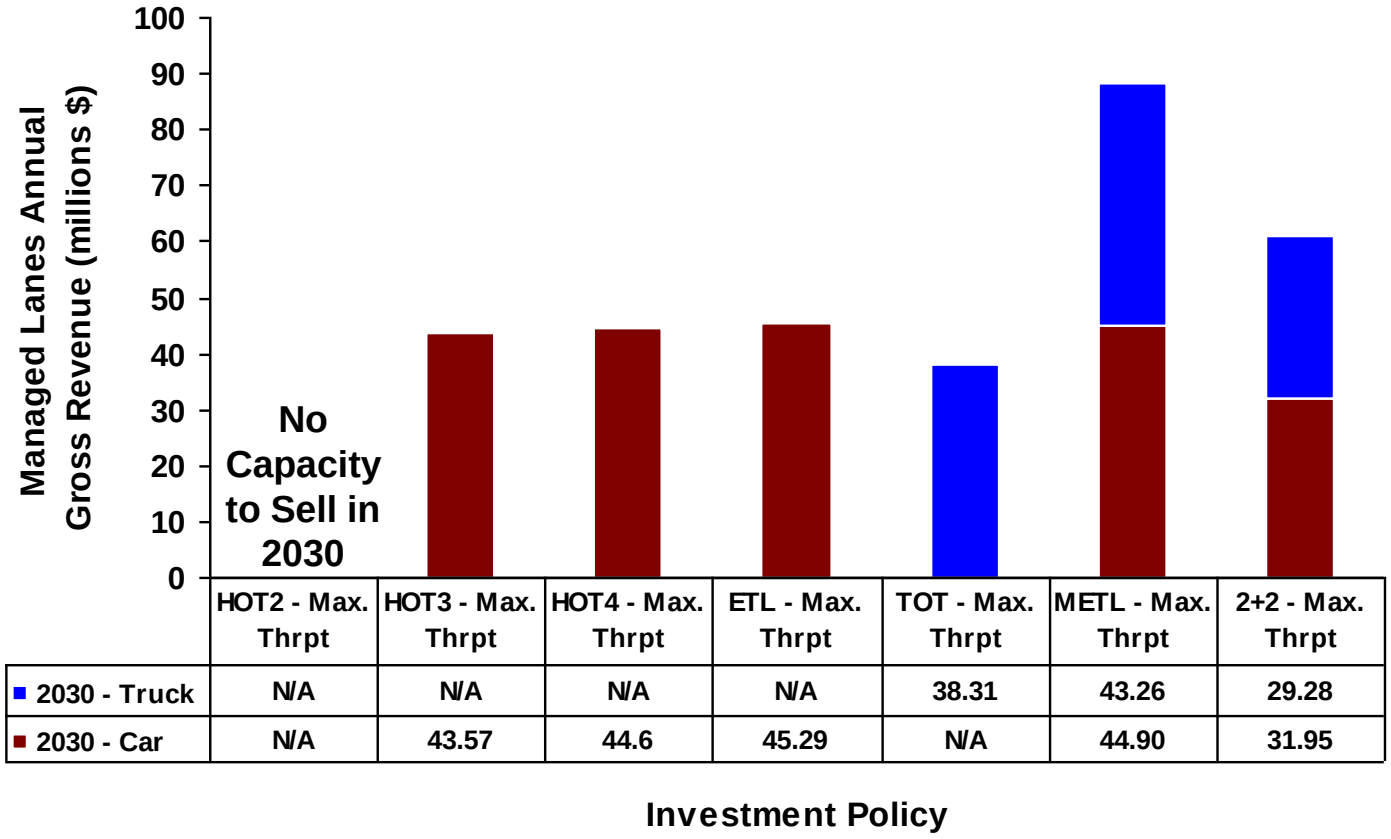
	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
2030 - Truck	N/A	N/A	N/A	N/A	66.30	45.46	52.87
2030 - Car	N/A	44.5	44.92	45.39	N/A	48.64	41.16

Distance ≈ 21 Miles



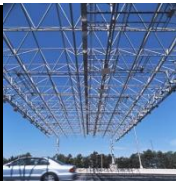
I-285 West Corridor – Max Throughput Forecast



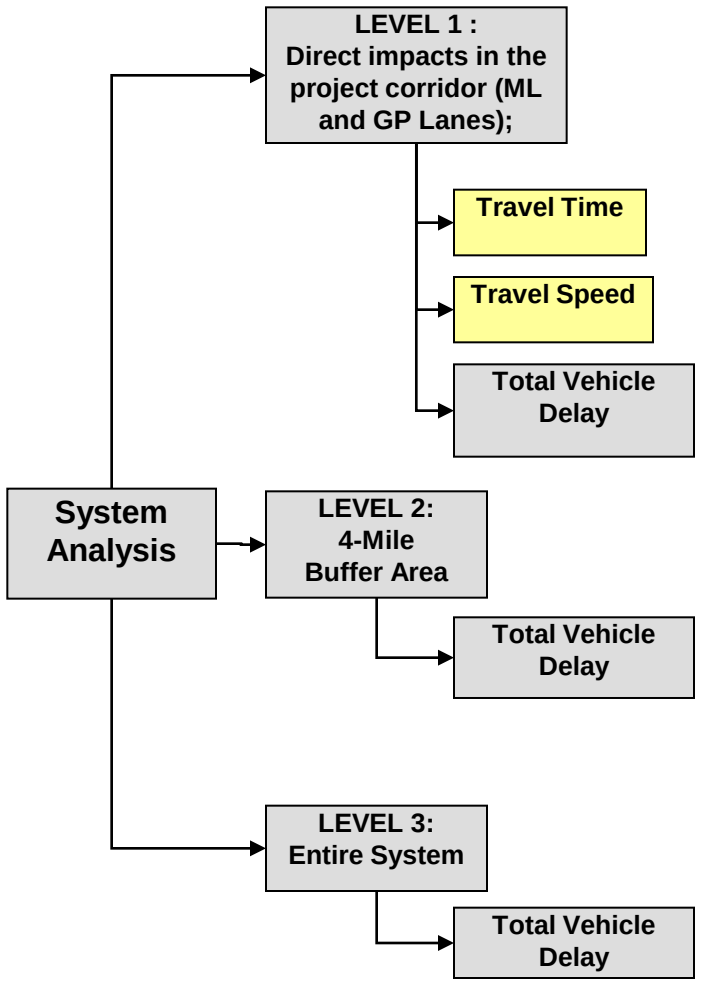


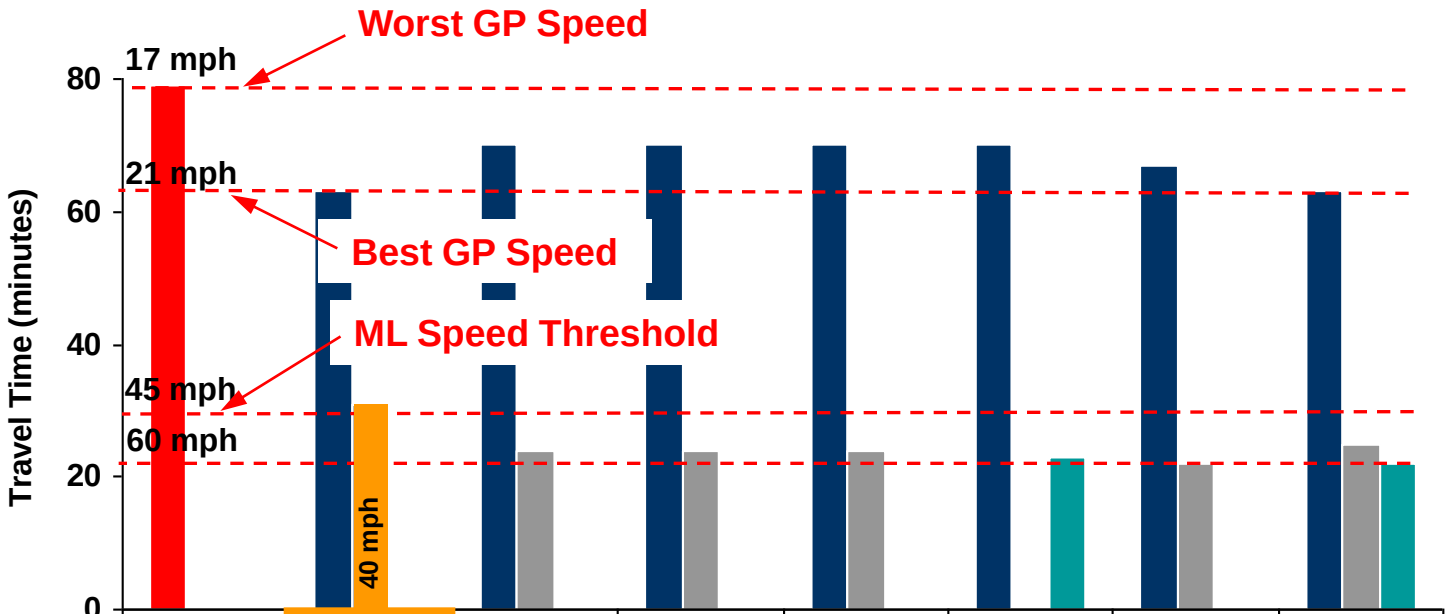
	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
2030 - Truck	N/A	N/A	N/A	N/A	38.31	43.26	29.28
2030 - Car	N/A	43.57	44.6	45.29	N/A	44.90	31.95

Distance ≈ 21 Miles



I-285 West Corridor
– Transportation User Benefits (2030 Max Revenue)





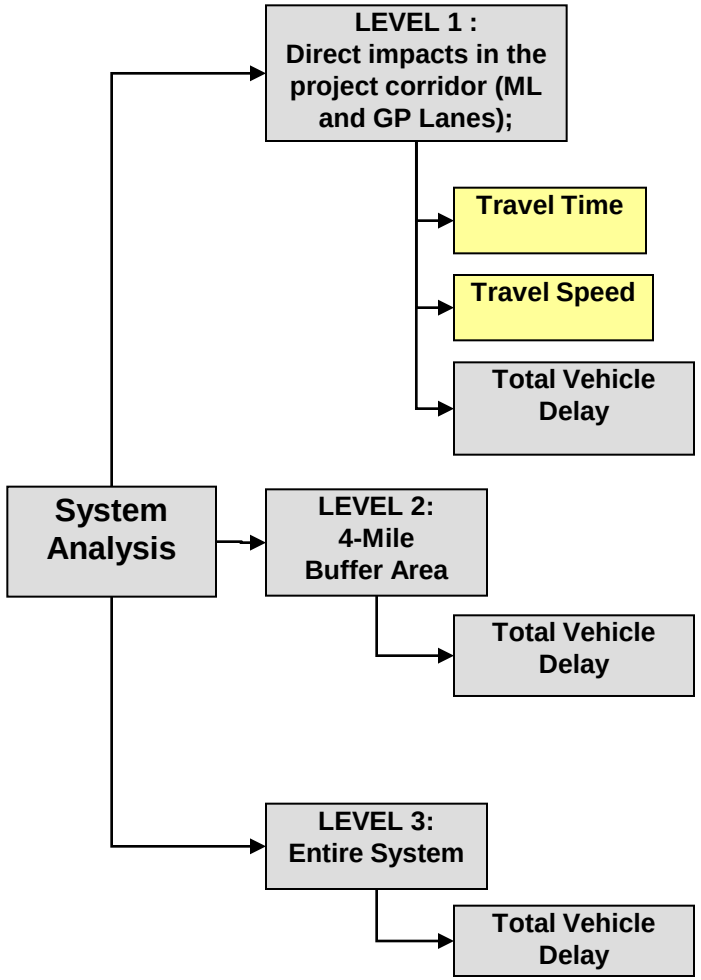
	No Project	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
GP Travel Time	79	63	70	70	70	70	67	63
ML Travel Time	N/A	31	24	24	24	N/A	22	25
TL Travel Time	N/A	N/A	N/A	N/A	N/A	23	N/A	22

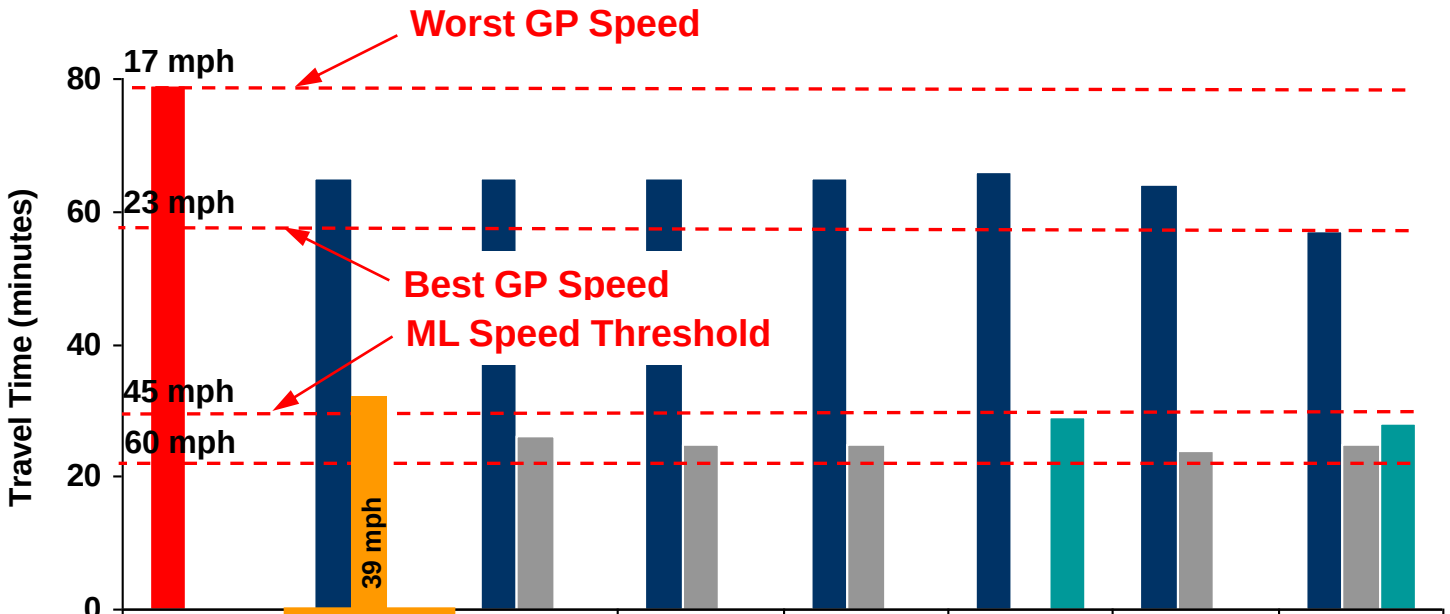
Investment Policy

- **Distance ≈ 21 Miles**
- **GP Travel Speed: 17 - 23 mph**
- **ML Travel Speed: 53 - 60 mph**
- **TL Travel Speed: 45 - 60 mph**



I-285 West Corridor
– Transportation User Benefits (2030 Max Throughput)





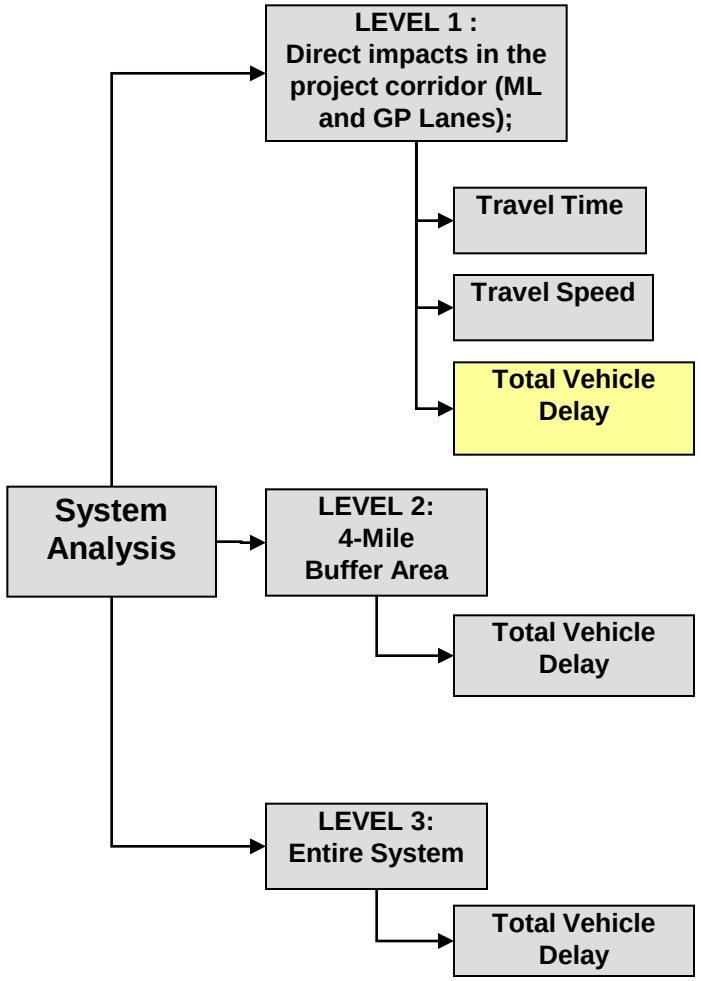
	No Project	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
GP Travel Time	79	65	65	65	65	66	64	57
ML Travel Time	N/A	32	26	25	25	N/A	24	25
TL Travel Time	N/A	N/A	N/A	N/A	N/A	29	N/A	28

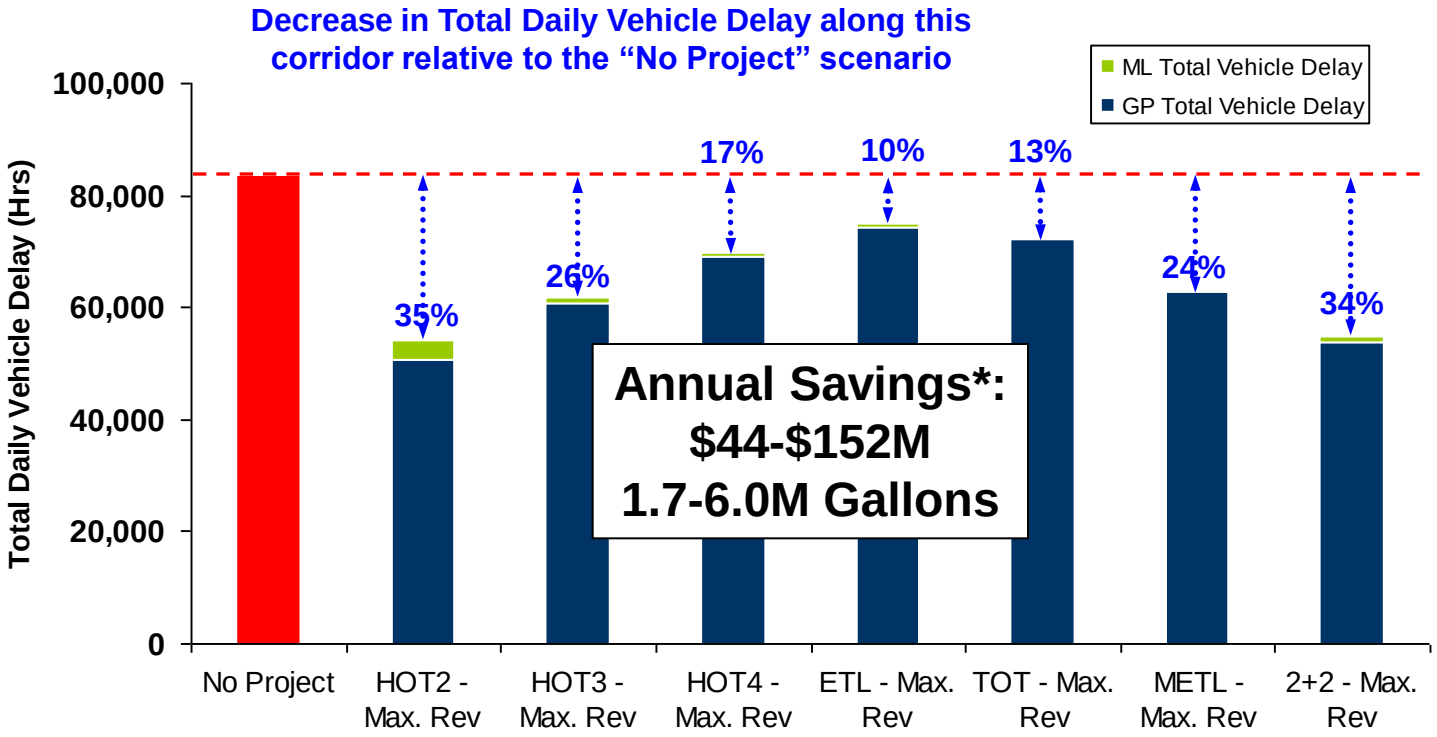
Investment Policy

- **Distance ≈ 21 Miles**
- **GP Travel Speed: 17 - 23 mph**
- **ML Travel Speed: 53 - 60 mph**
- **TL Travel Speed: 45 - 60 mph**



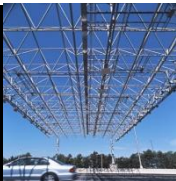
I-285 West Corridor
– Transportation User Benefits (2030 Max Revenue)



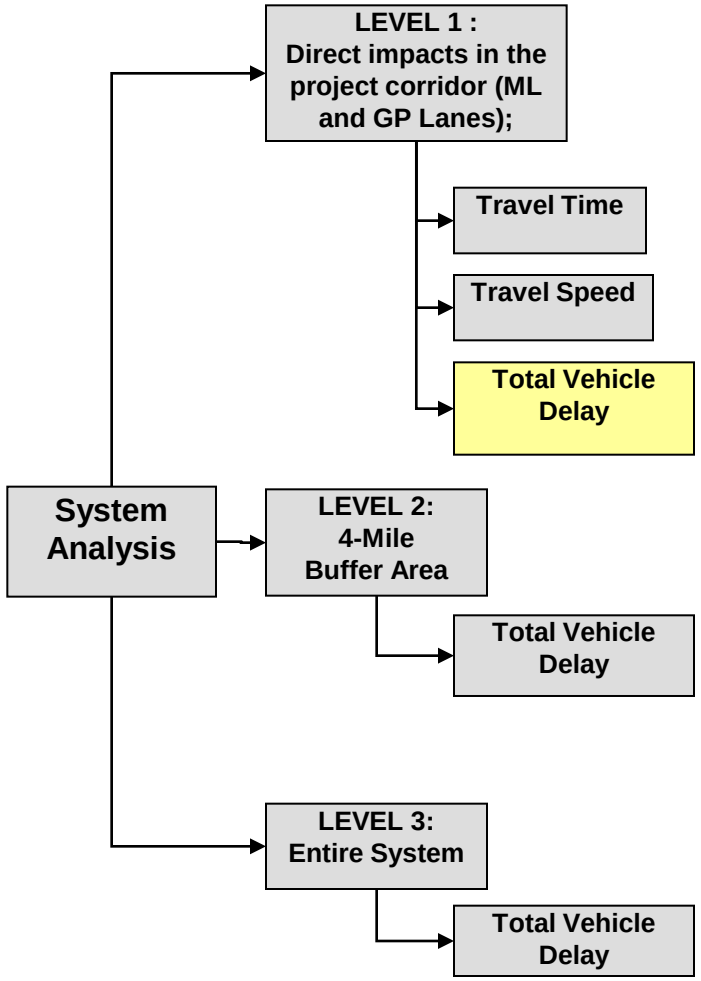


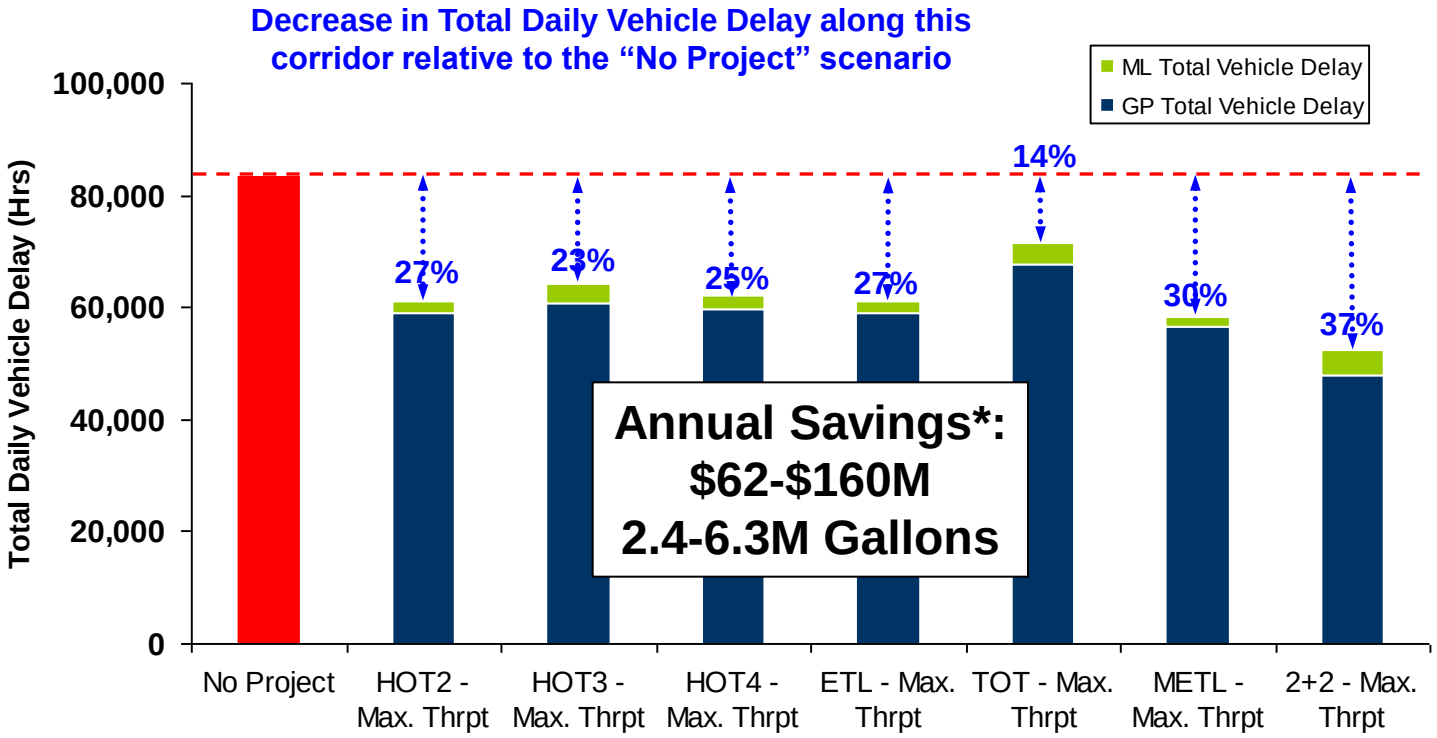
*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with ETL Maximum Revenue policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 21 Miles



I-285 West Corridor – Transportation User Benefits (2030 Max Throughput)

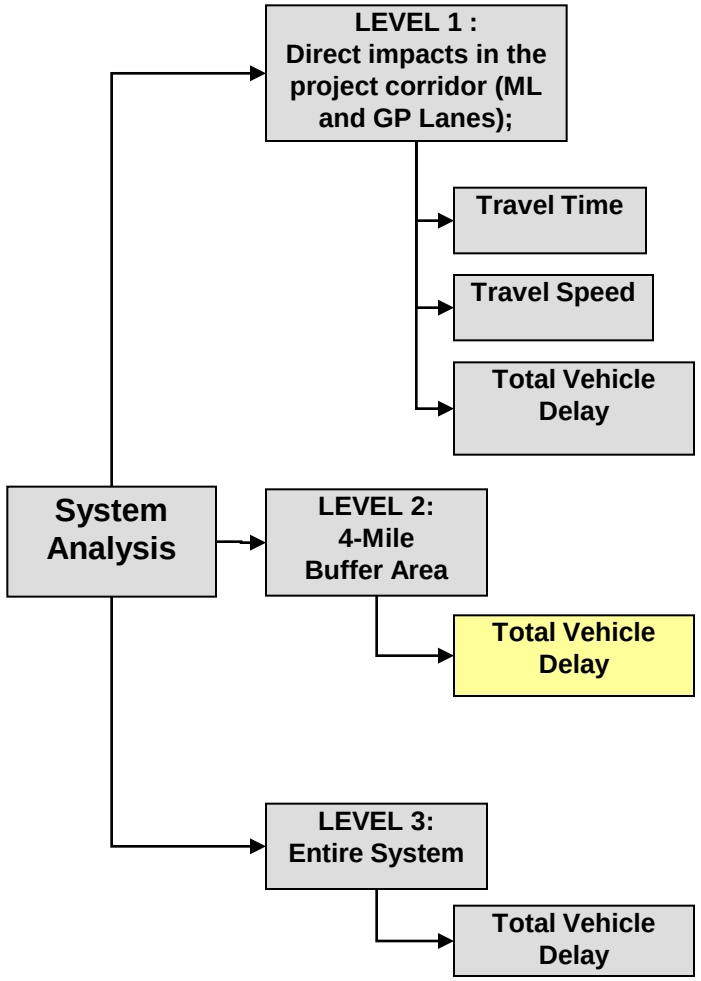


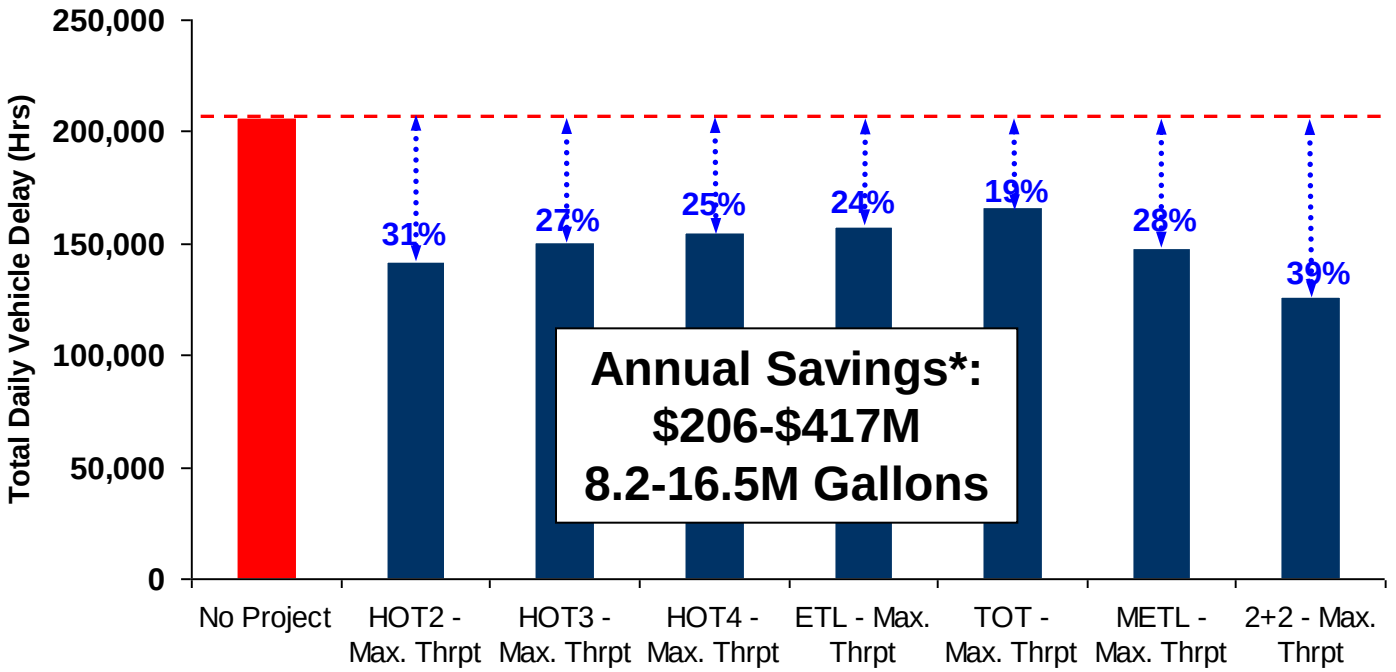


*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 21 Miles

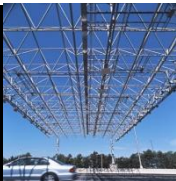
I-285 West Corridor
– Transportation User Benefits (2030 Max Throughput)



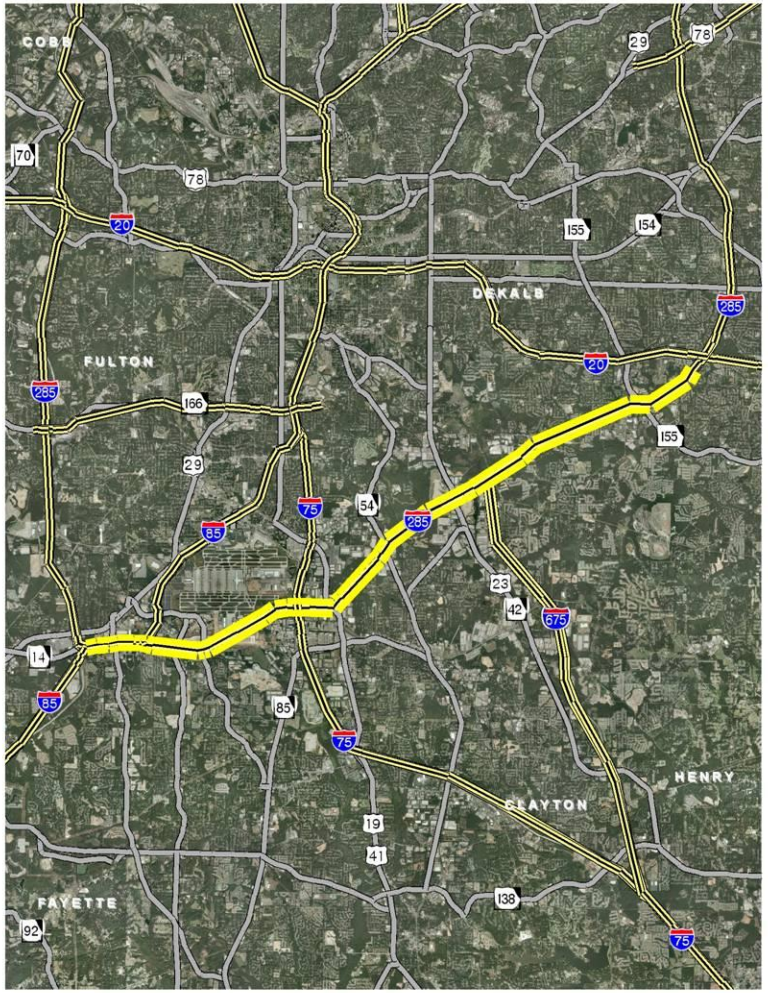


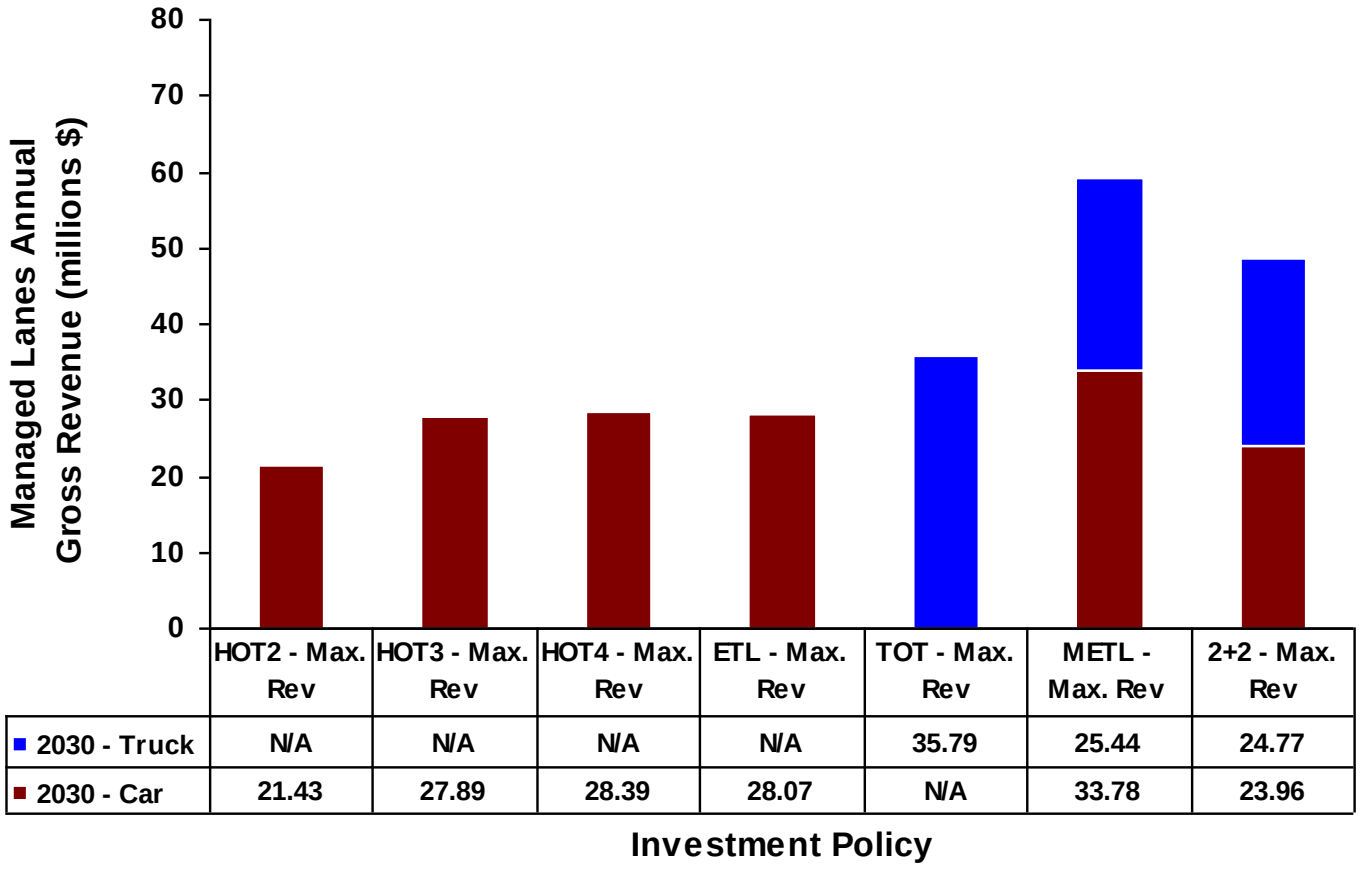
*Potential range of savings realized in this area, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 21 Miles



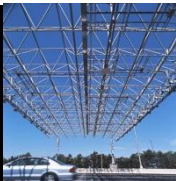
I-285 South Corridor – Max Revenue Forecast



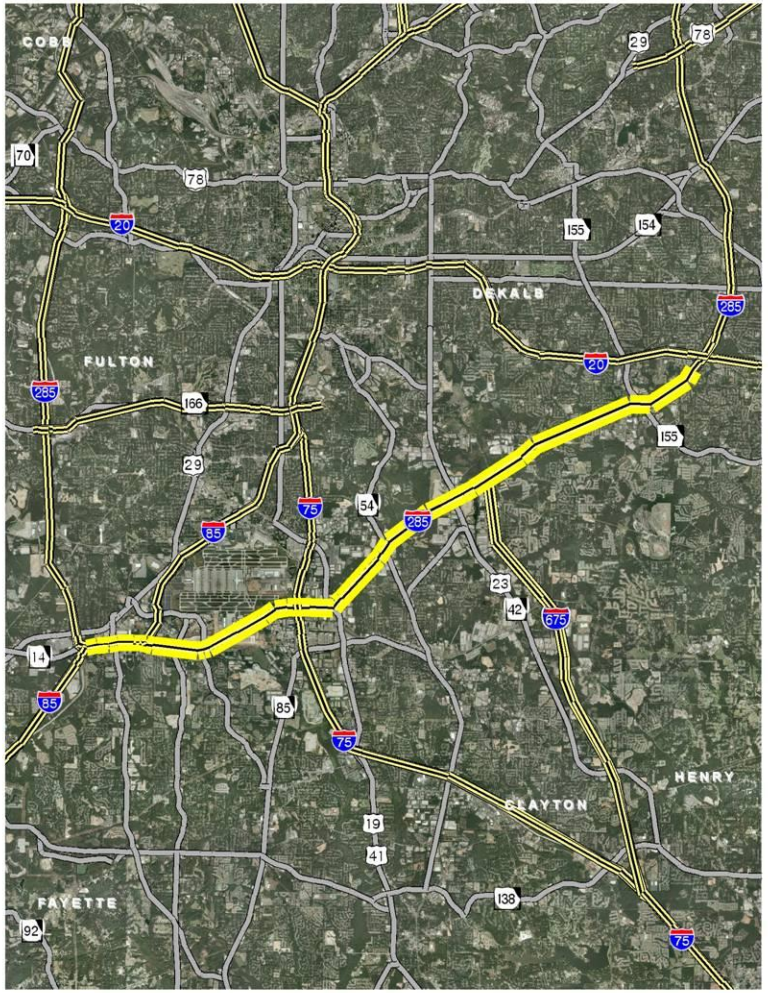


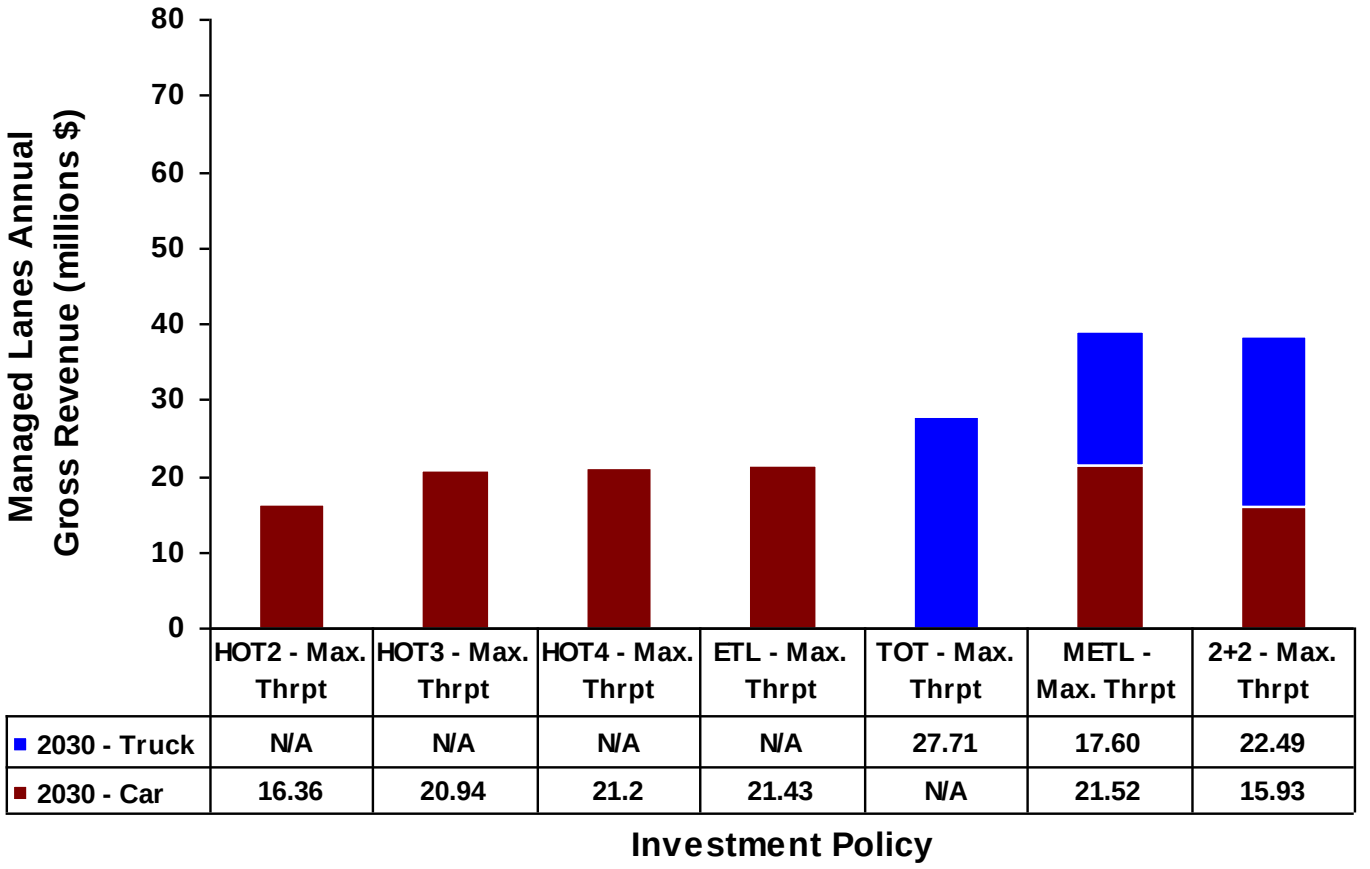
	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
2030 - Truck	N/A	N/A	N/A	N/A	35.79	25.44	24.77
2030 - Car	21.43	27.89	28.39	28.07	N/A	33.78	23.96

Distance ≈ 17 Miles



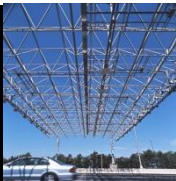
I-285 South Corridor – Max Throughput Forecast



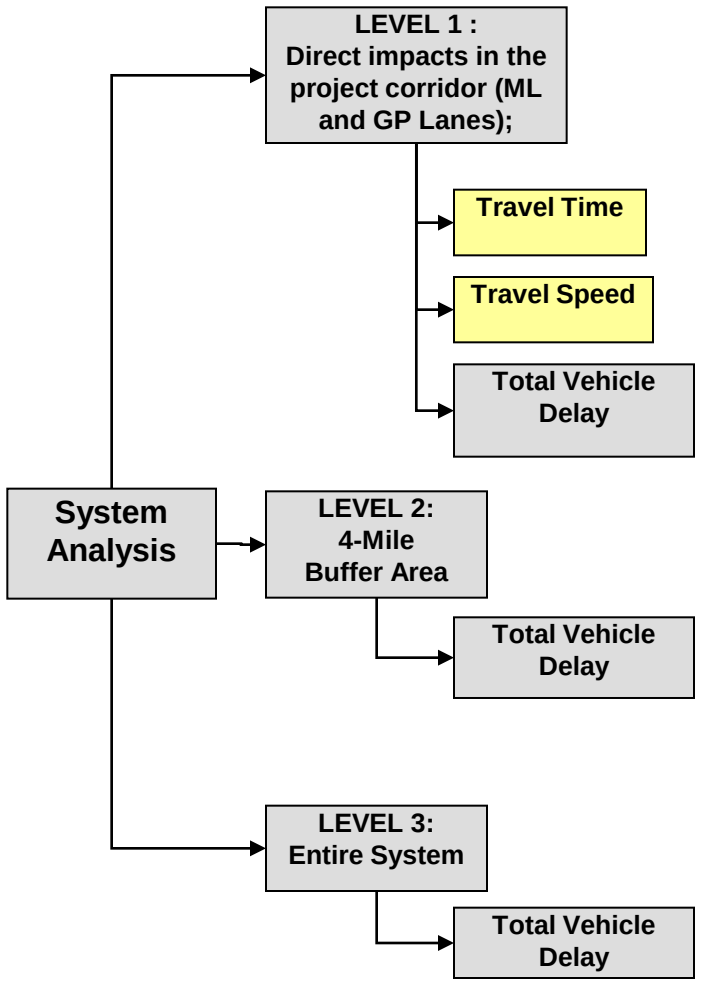


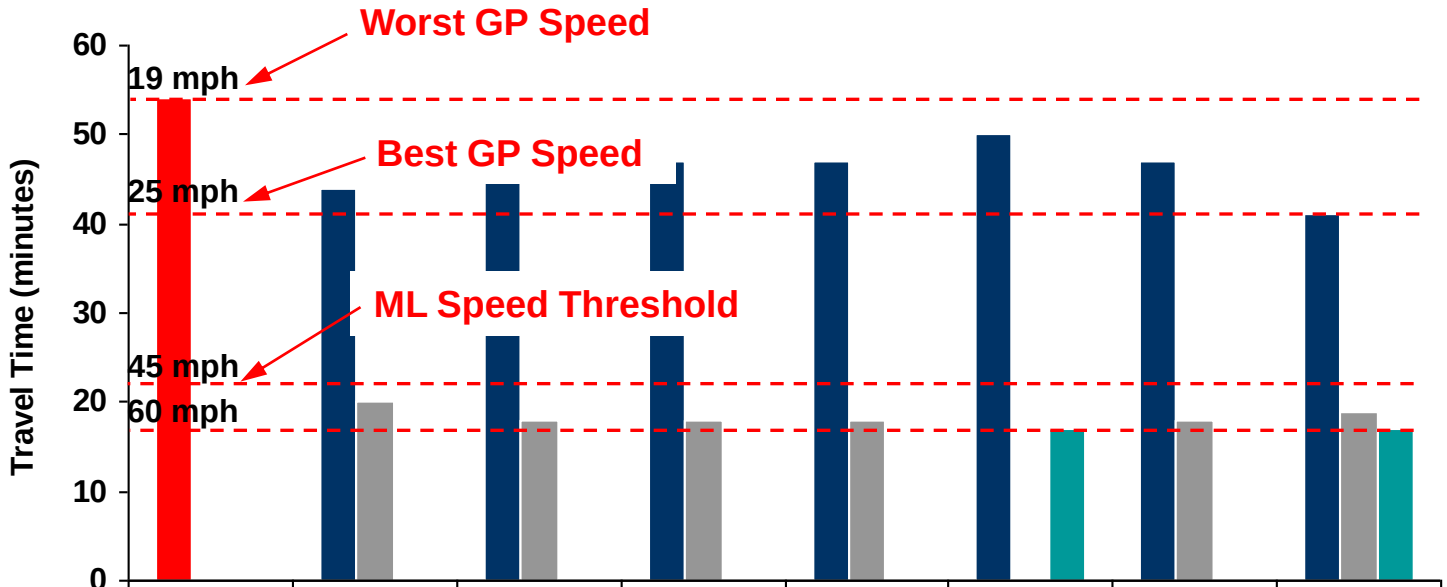
	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
2030 - Truck	N/A	N/A	N/A	N/A	27.71	17.60	22.49
2030 - Car	16.36	20.94	21.2	21.43	N/A	21.52	15.93

Distance ≈ 17 Miles



I-285 South Corridor
– Transportation User Benefits (2030 Max Revenue)





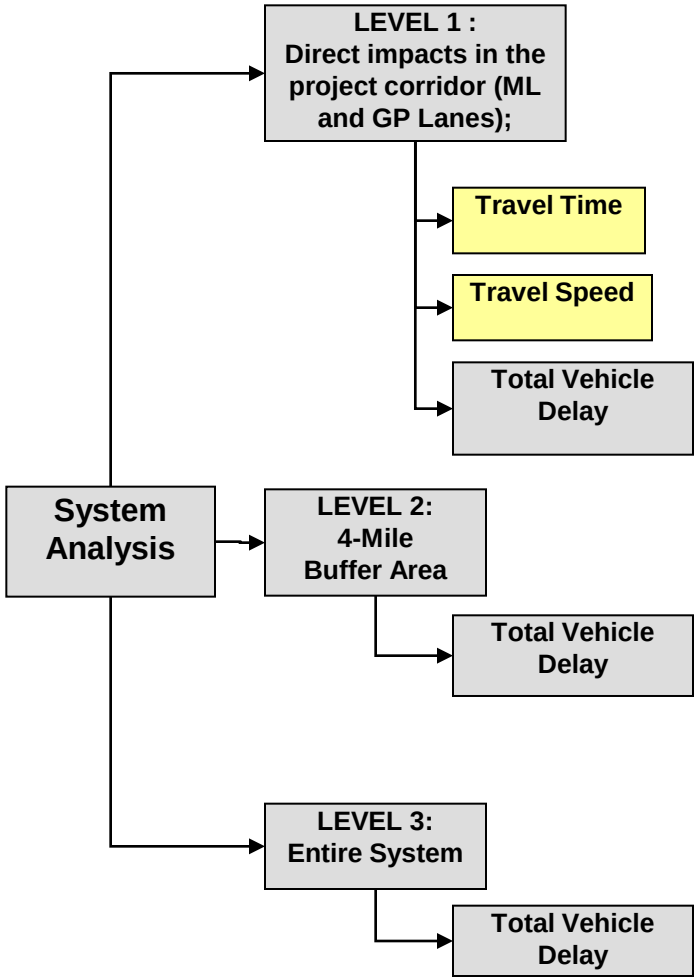
	No Project	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
GP Travel Time	54	44	46	47	47	50	47	41
ML Travel Time	N/A	20	18	18	18	N/A	18	19
TL Travel Time	N/A	N/A	N/A	N/A	N/A	17	N/A	17

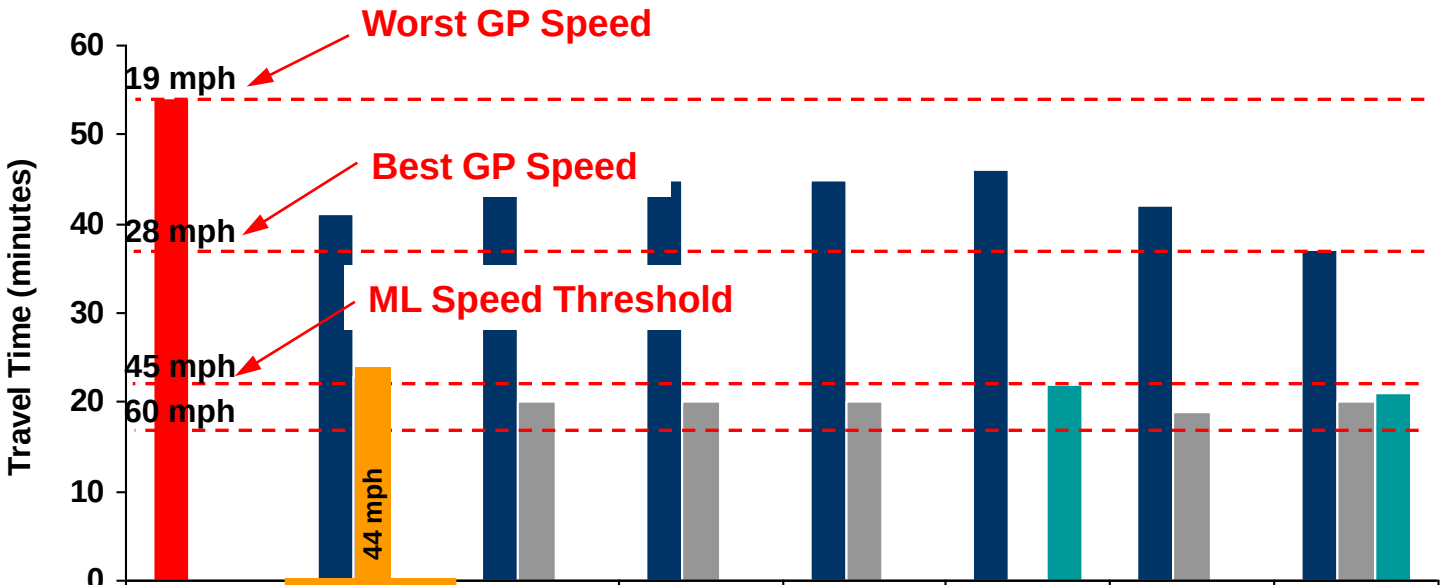
Investment Policy

- **Distance ≈ 17 Miles**
- **GP Travel Speed: 19 - 28 mph**
- **ML Travel Speed: 51 - 57 mph**
- **TL Travel Speed: 46 - 60 mph**



I-285 South Corridor
– Transportation User Benefits (2030 Max Throughput)





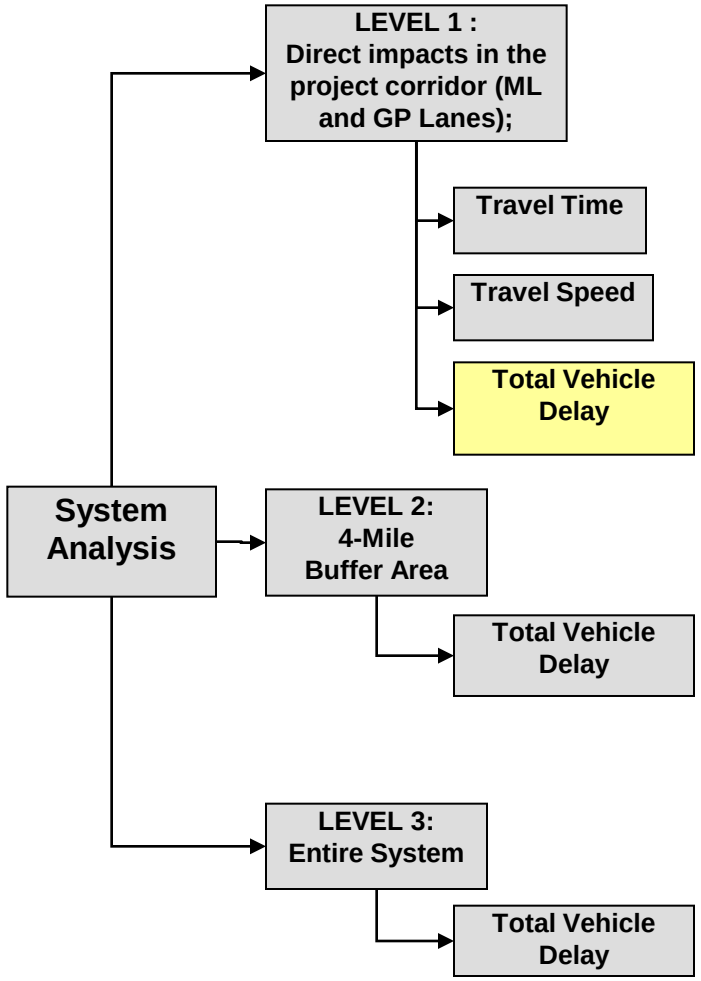
	No Project	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max Thrpt	2+2 - Max. Thrpt
GP Travel Time	54	41	44	45	45	46	42	37
ML Travel Time	N/A	23	20	20	20	N/A	19	20
TL Travel Time	N/A	N/A	N/A	N/A	N/A	22	N/A	21

Investment Policy

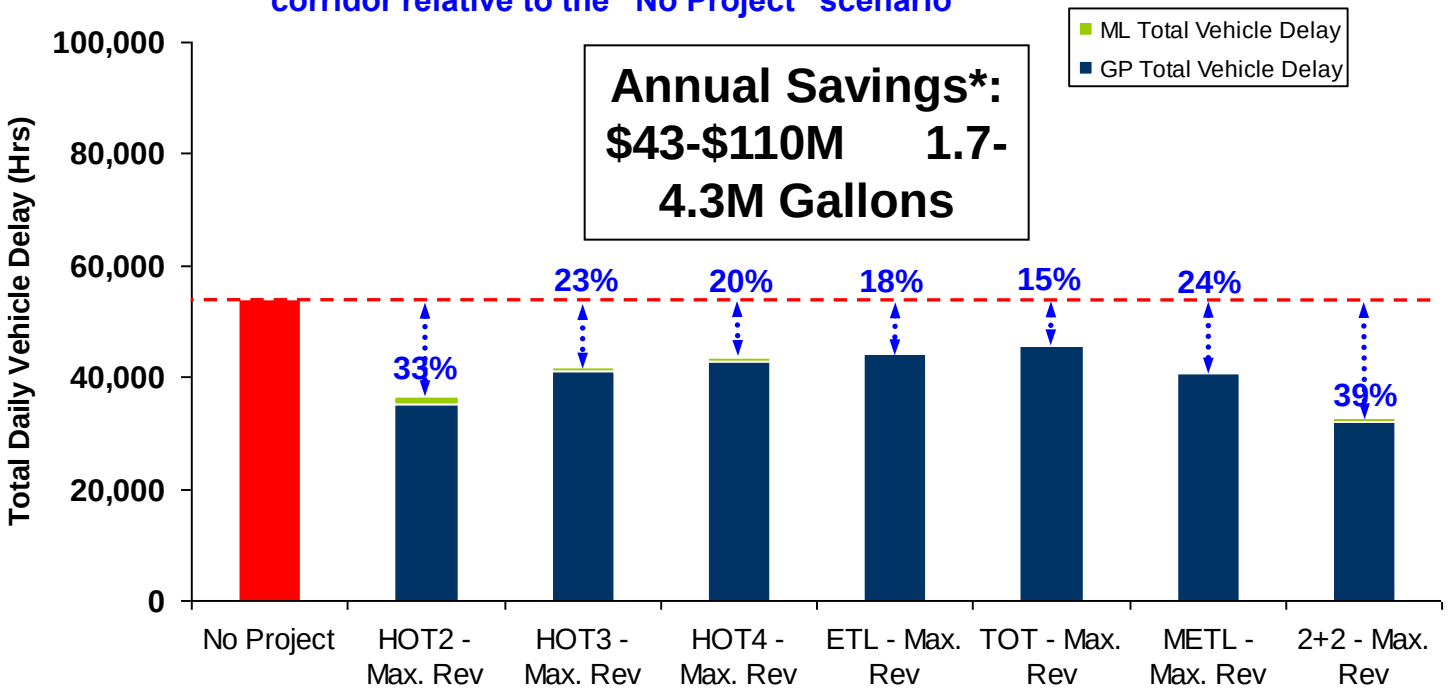
- **Distance ≈ 17 Miles**
- **GP Travel Speed: 19 - 28 mph**
- **ML Travel Speed: 51 - 57 mph**
- **TL Travel Speed: 46 - 60 mph**



I-285 South Corridor
– Transportation User Benefits (2030 Max Revenue)



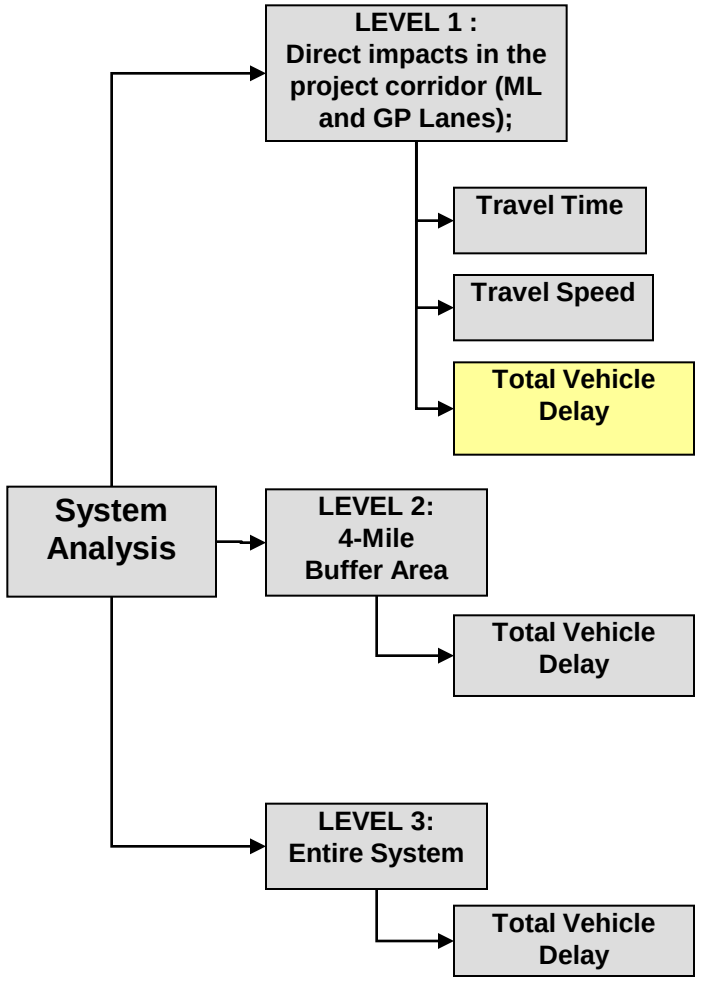
Decrease in Total Daily Vehicle Delay along this corridor relative to the "No Project" scenario



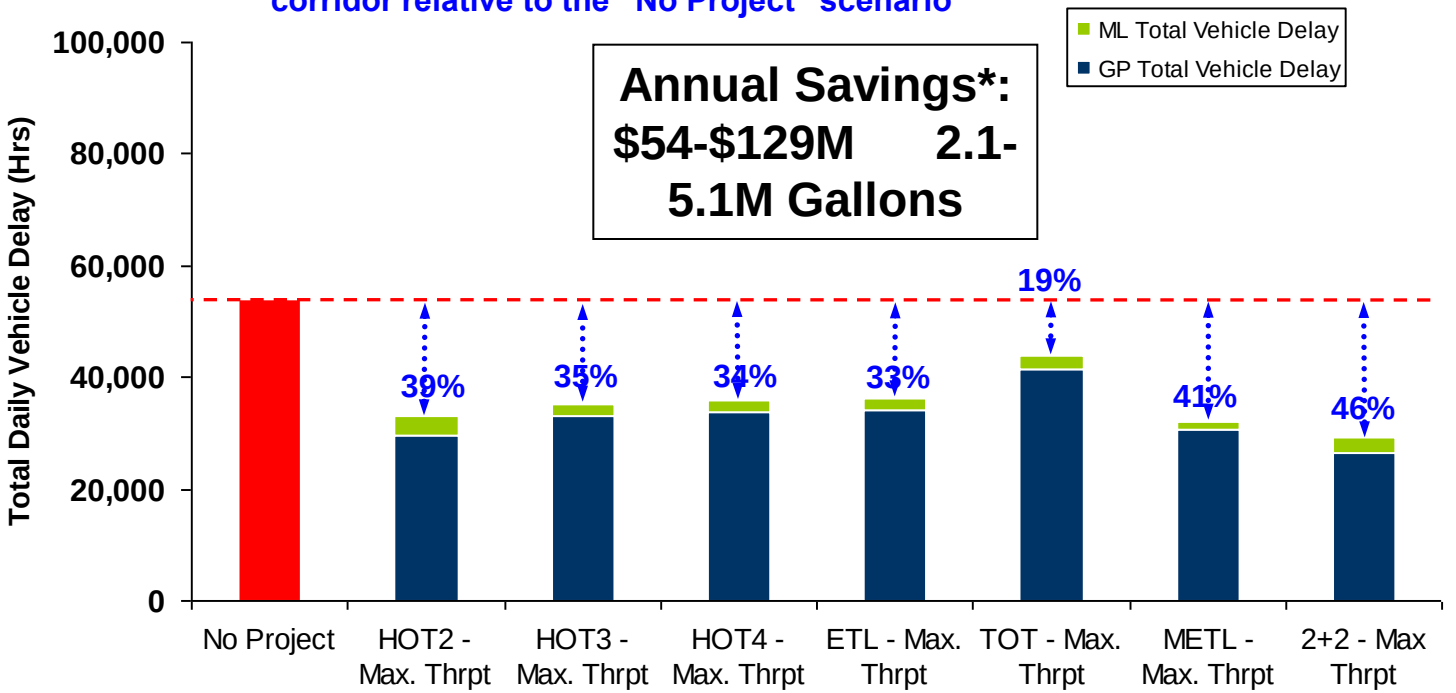
*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Revenue policy and high end of range associated with 2+2 Maximum Revenue policy.

Distance ≈ 17 Miles

I-285 South Corridor
– Transportation User Benefits (2030 Max Throughput)



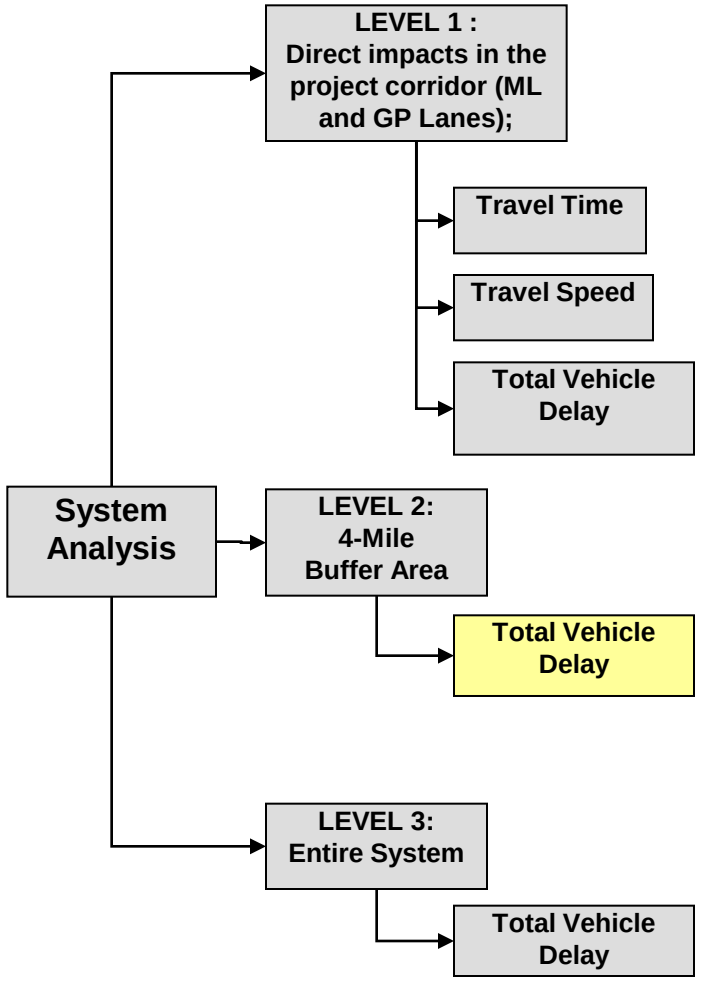
Decrease in Total Daily Vehicle Delay along this corridor relative to the "No Project" scenario

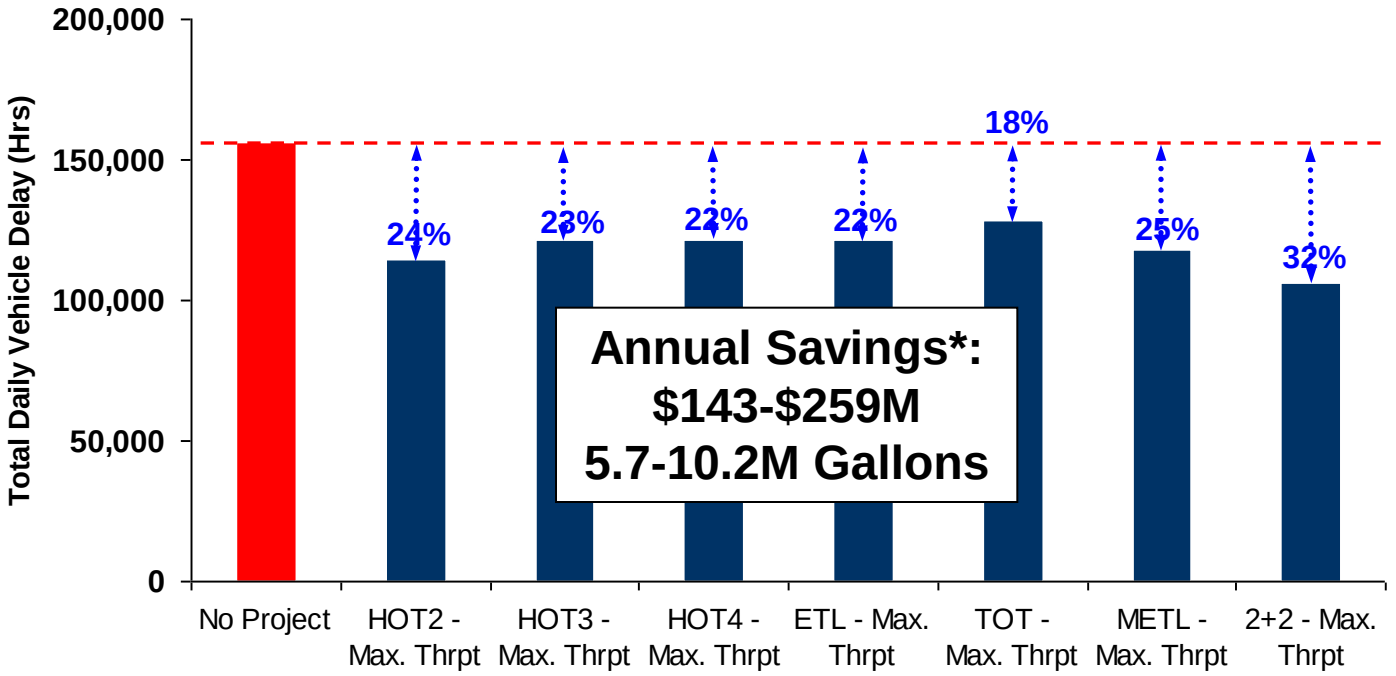


*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 17 Miles

I-285 South Corridor
– Transportation User Benefits (2030 Max Throughput)

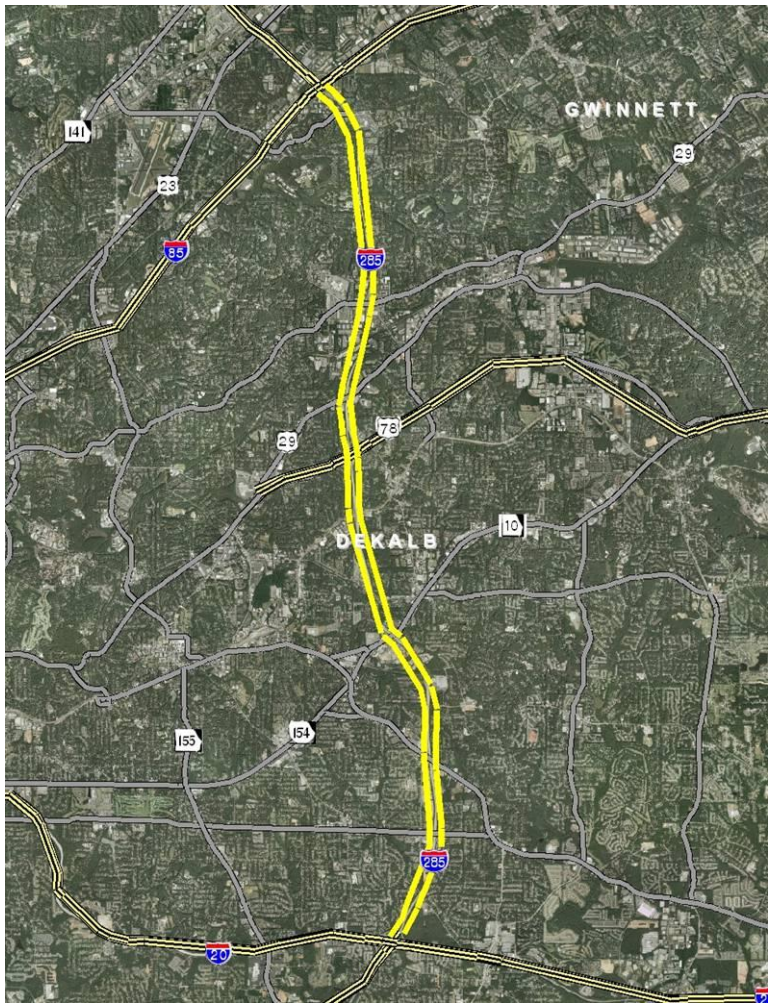


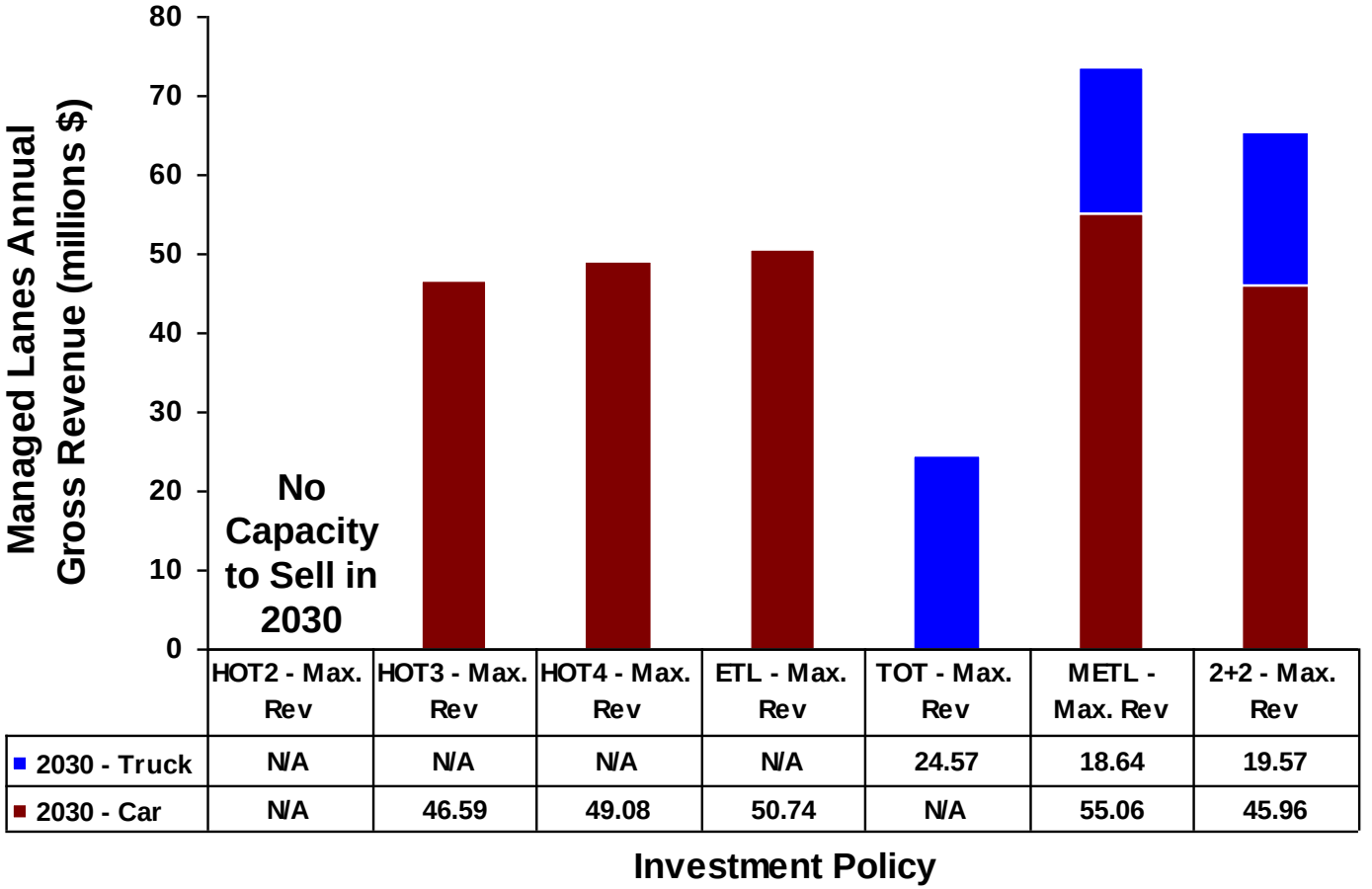


*Potential range of savings realized in this area, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 17 Miles

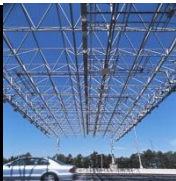
I-285 East Corridor– Max Revenue Forecast



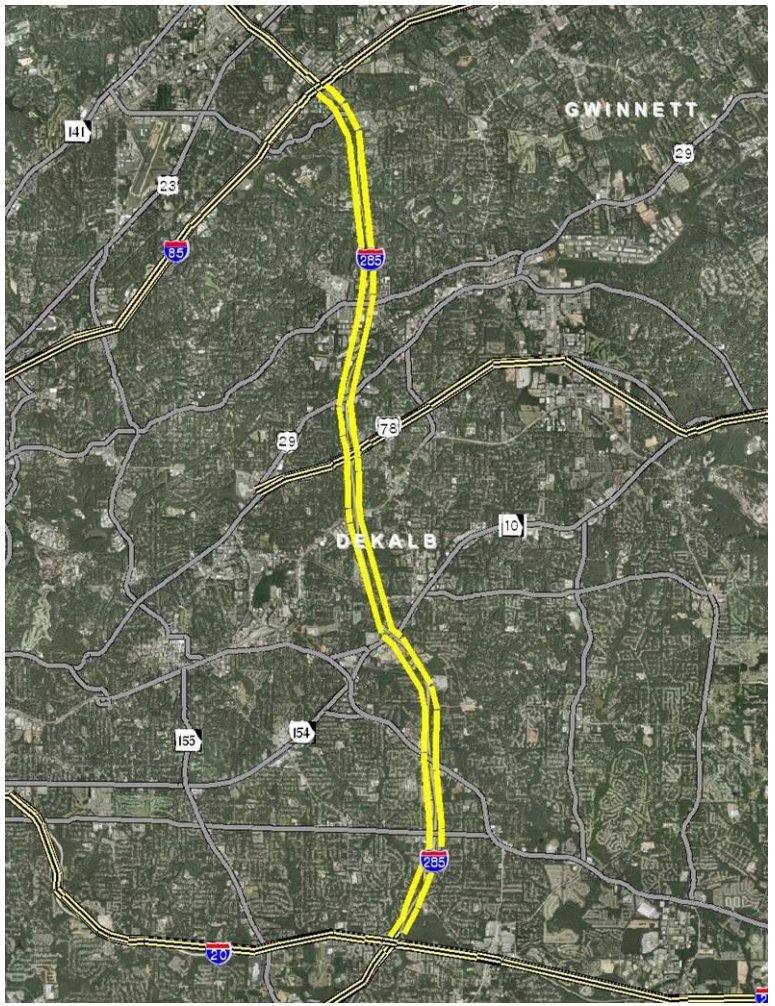


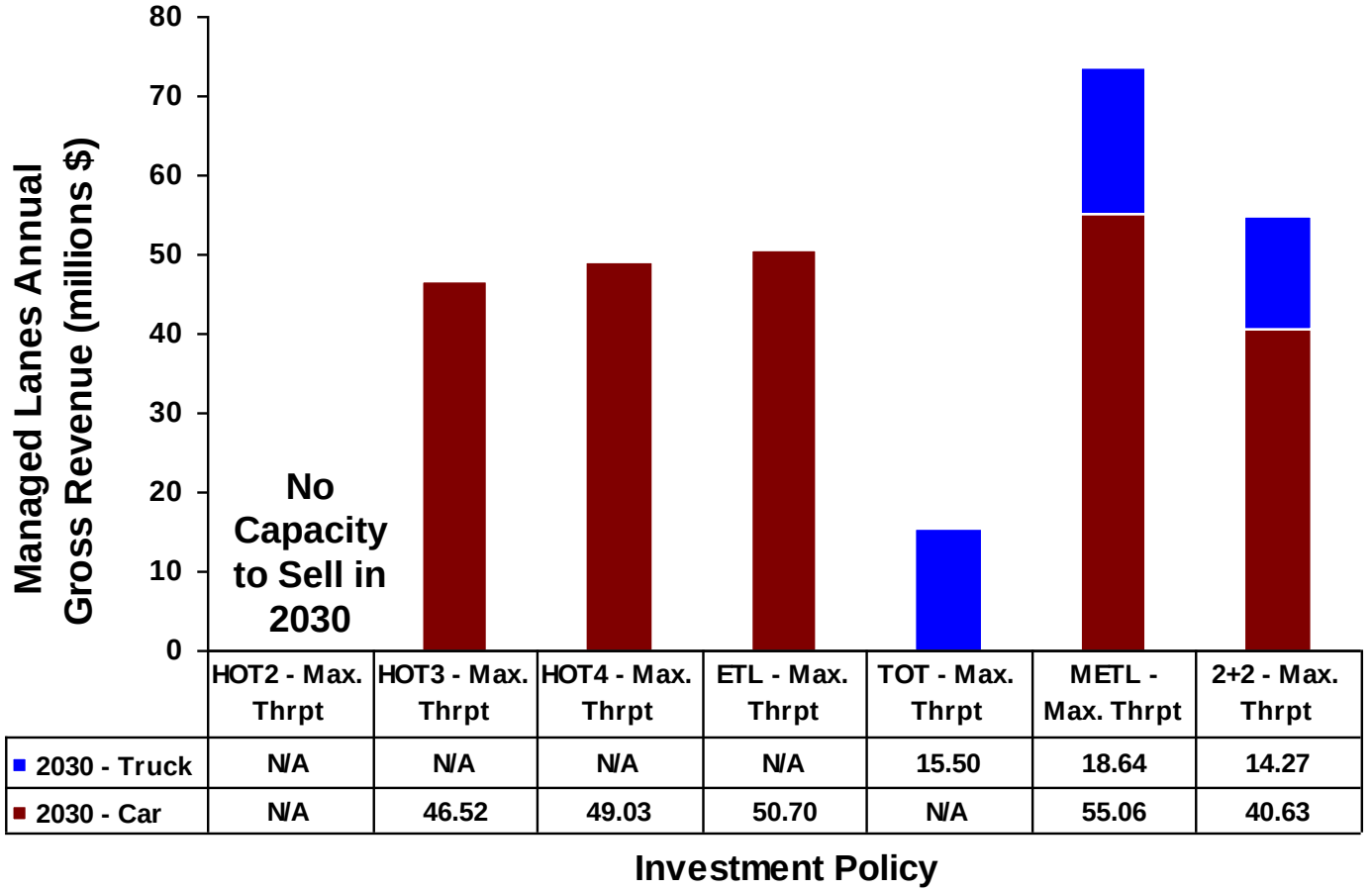
	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
2030 - Truck	N/A	N/A	N/A	N/A	24.57	18.64	19.57
2030 - Car	N/A	46.59	49.08	50.74	N/A	55.06	45.96

Distance ≈ 14 Miles



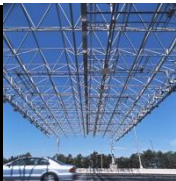
I-285 East Corridor– Max Throughput Forecast



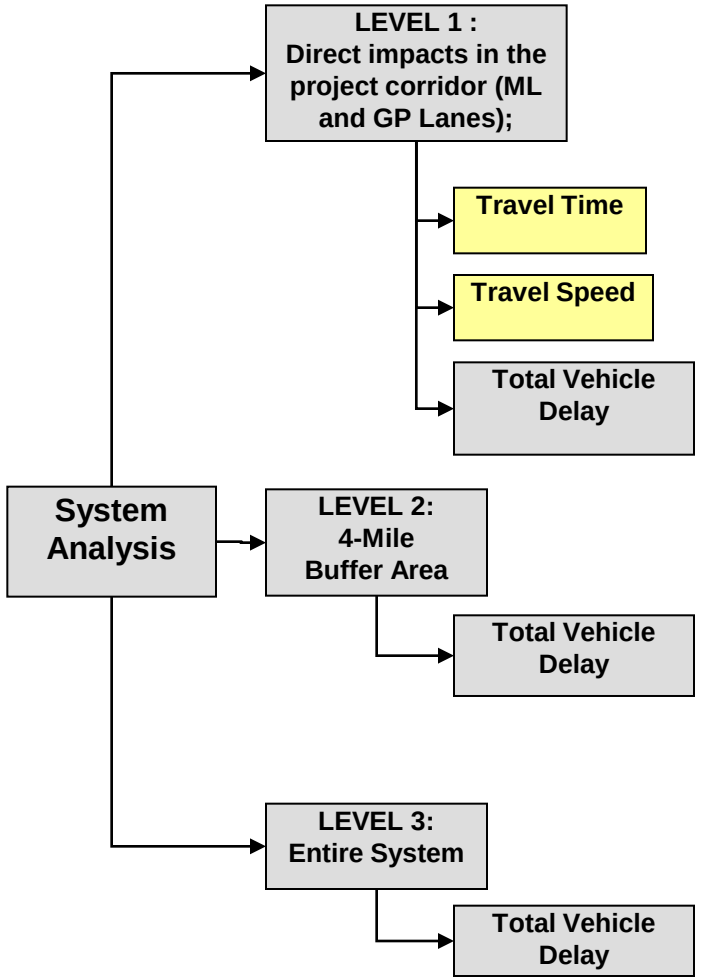


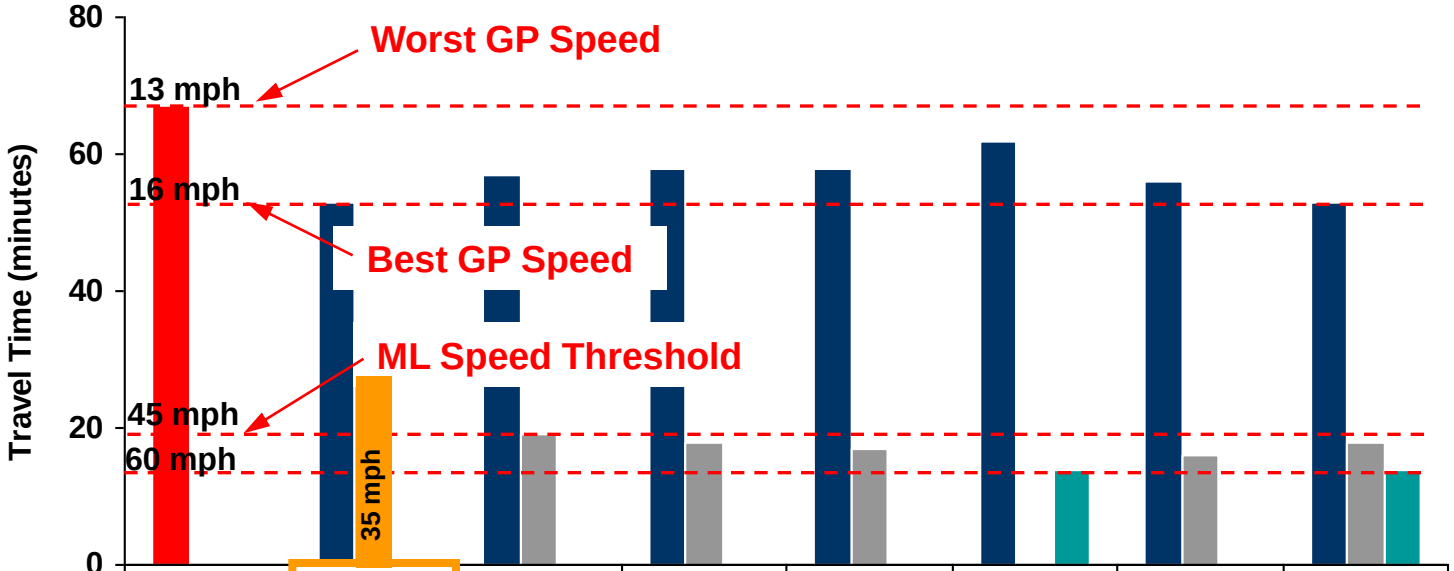
	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
2030 - Truck	N/A	N/A	N/A	N/A	15.50	18.64	14.27
2030 - Car	N/A	46.52	49.03	50.70	N/A	55.06	40.63

Distance ≈ 14 Miles



I-285 East Corridor
– Transportation User Benefits (2030 Max Revenue)





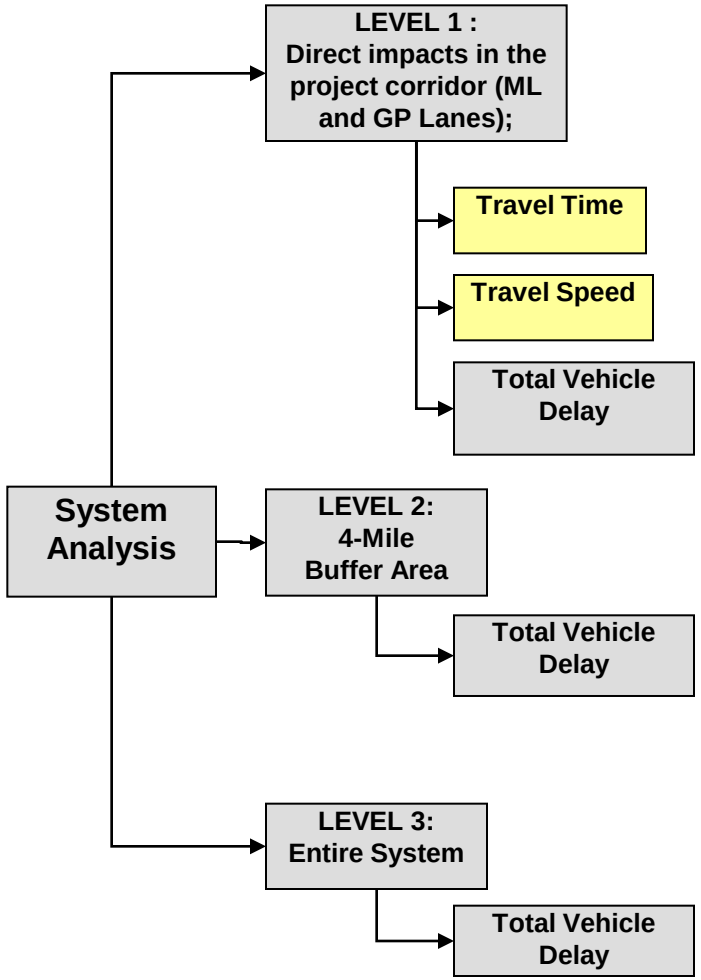
	No Project	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
GP Travel Time	67	53	57	58	58	62	56	53
ML Travel Time	N/A	28	19	18	17	N/A	16	18
TL Travel Time	N/A	N/A	N/A	N/A	N/A	14	N/A	14

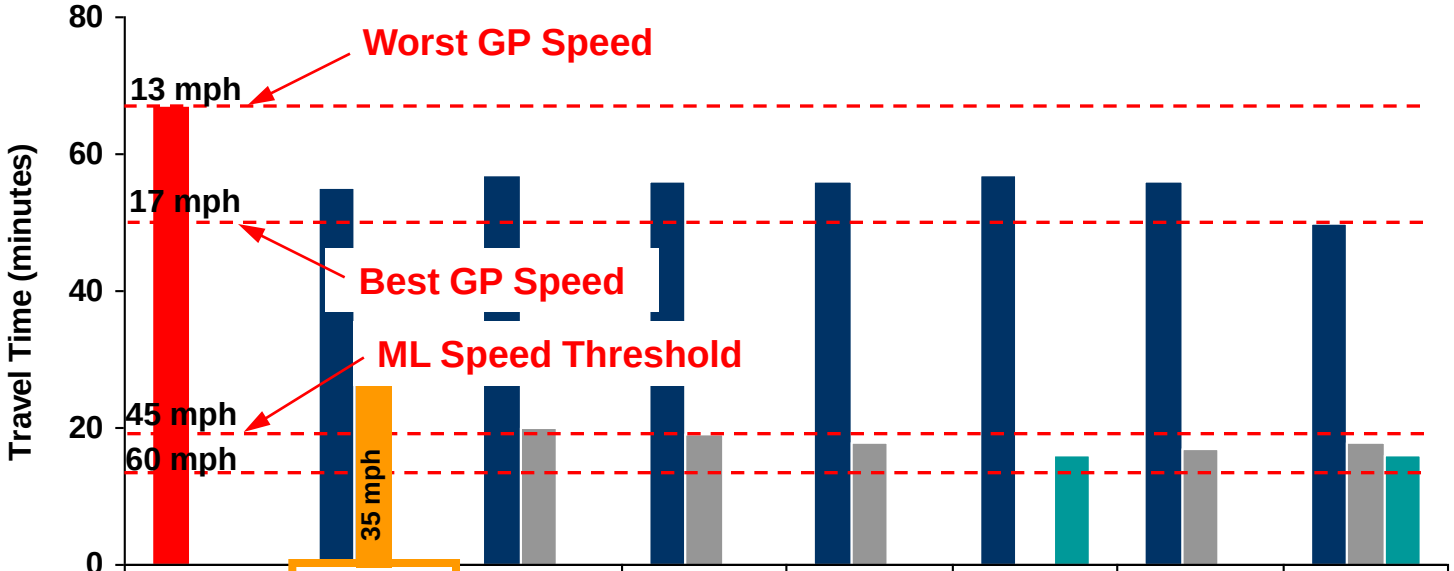
Investment Policy

- **Distance ≈ 14 Miles**
- **GP Travel Speed: 13 - 17 mph**
- **ML Travel Speed: 47 - 53 mph**
- **TL Travel Speed: 52 - 60 mph**



I-285 East Corridor
– Transportation User Benefits (2030 Max Throughput)





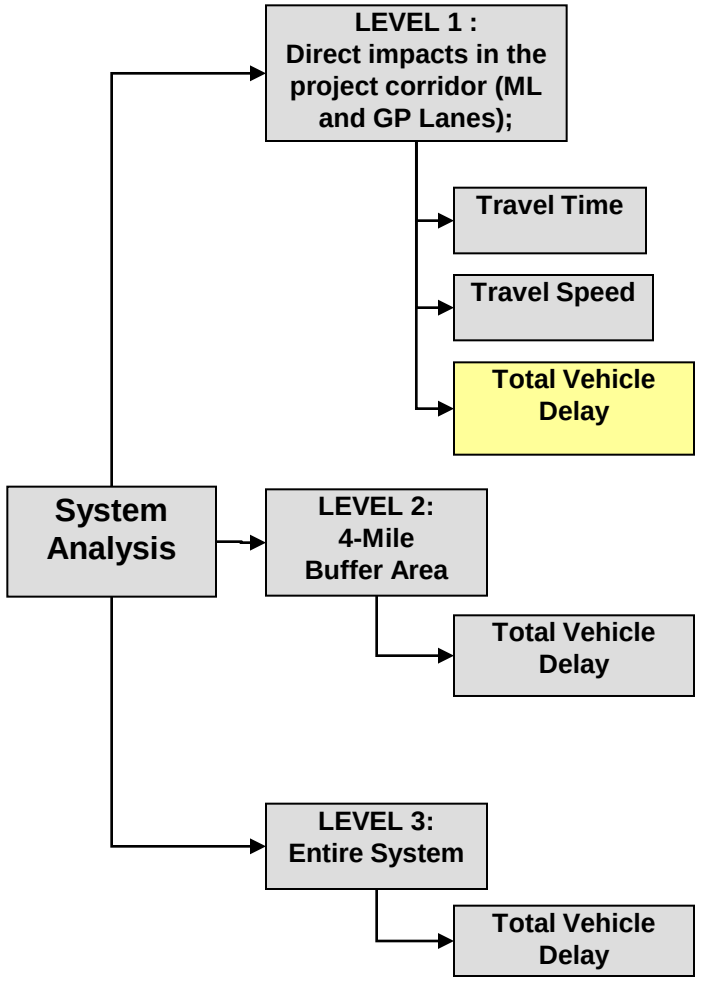
	No Project	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
GP Travel Time	67	55	57	56	56	57	56	50
ML Travel Time	N/A	28	20	19	18	N/A	17	18
TL Travel Time	N/A	N/A	N/A	N/A	N/A	16	N/A	16

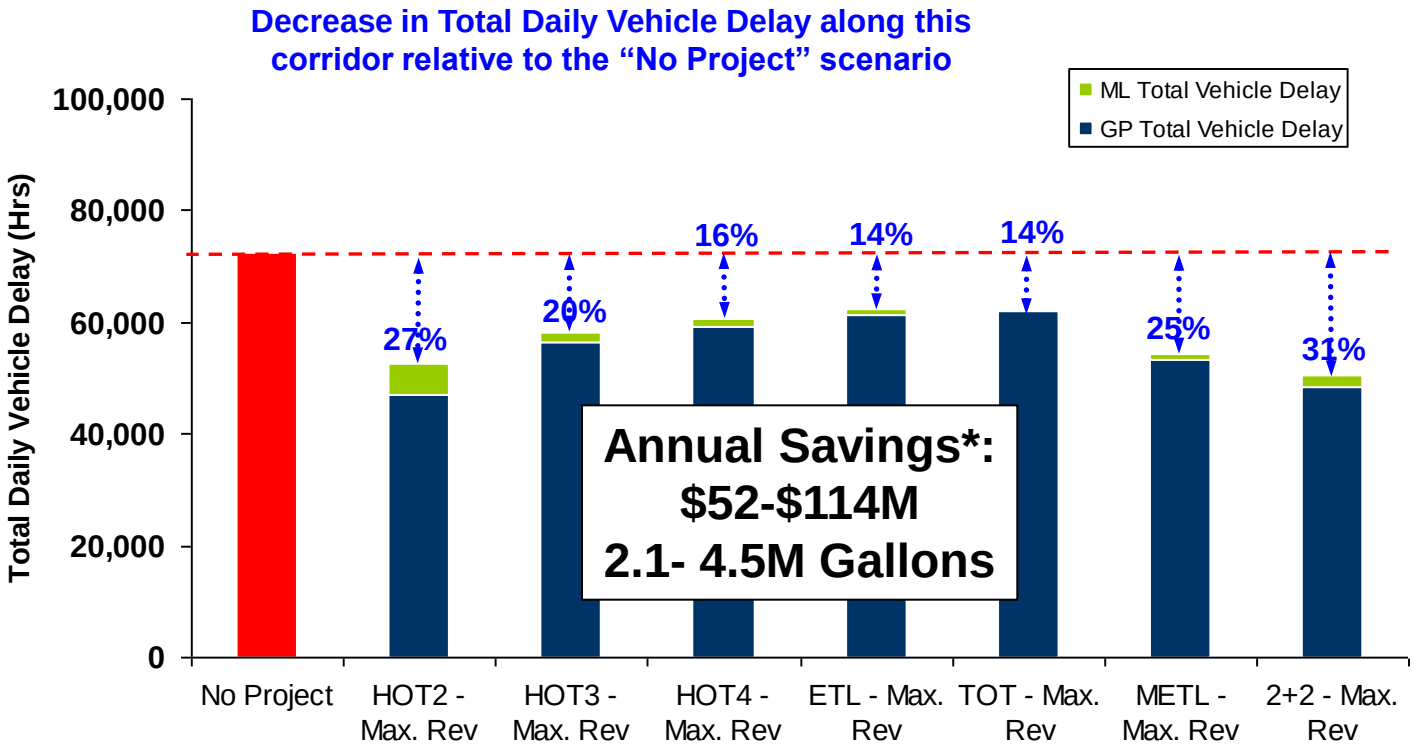
Investment Policy

- **Distance ≈ 14 Miles**
- **GP Travel Speed: 13 - 17 mph**
- **ML Travel Speed: 47 - 53 mph**
- **TL Travel Speed: 52 - 60 mph**



I-285 East Corridor
– Transportation User Benefits (2030 Max Revenue)

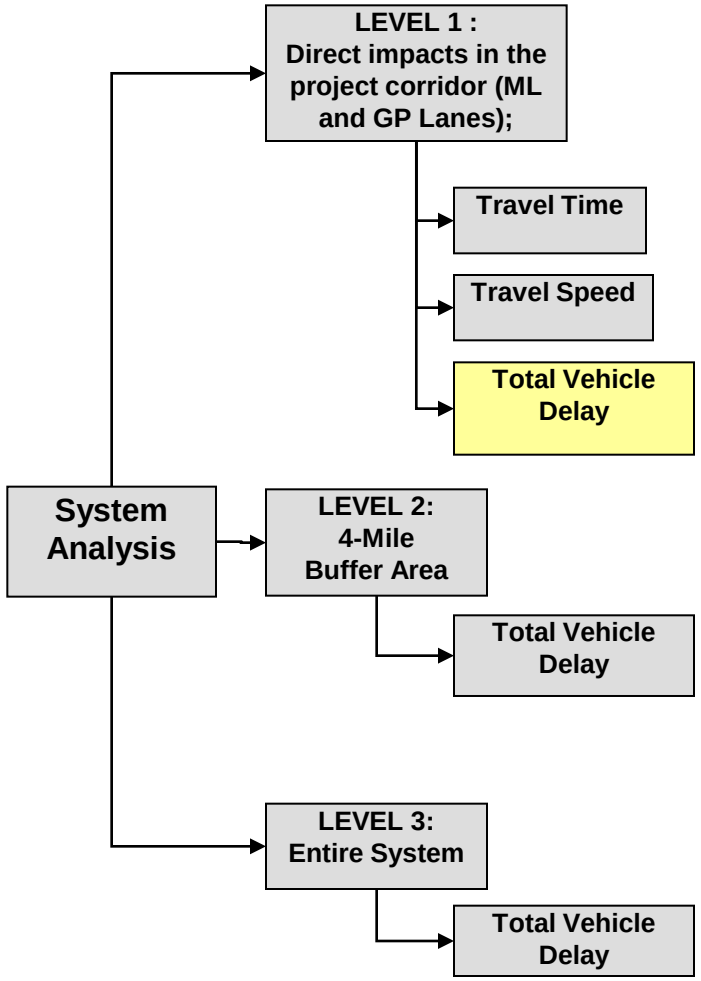


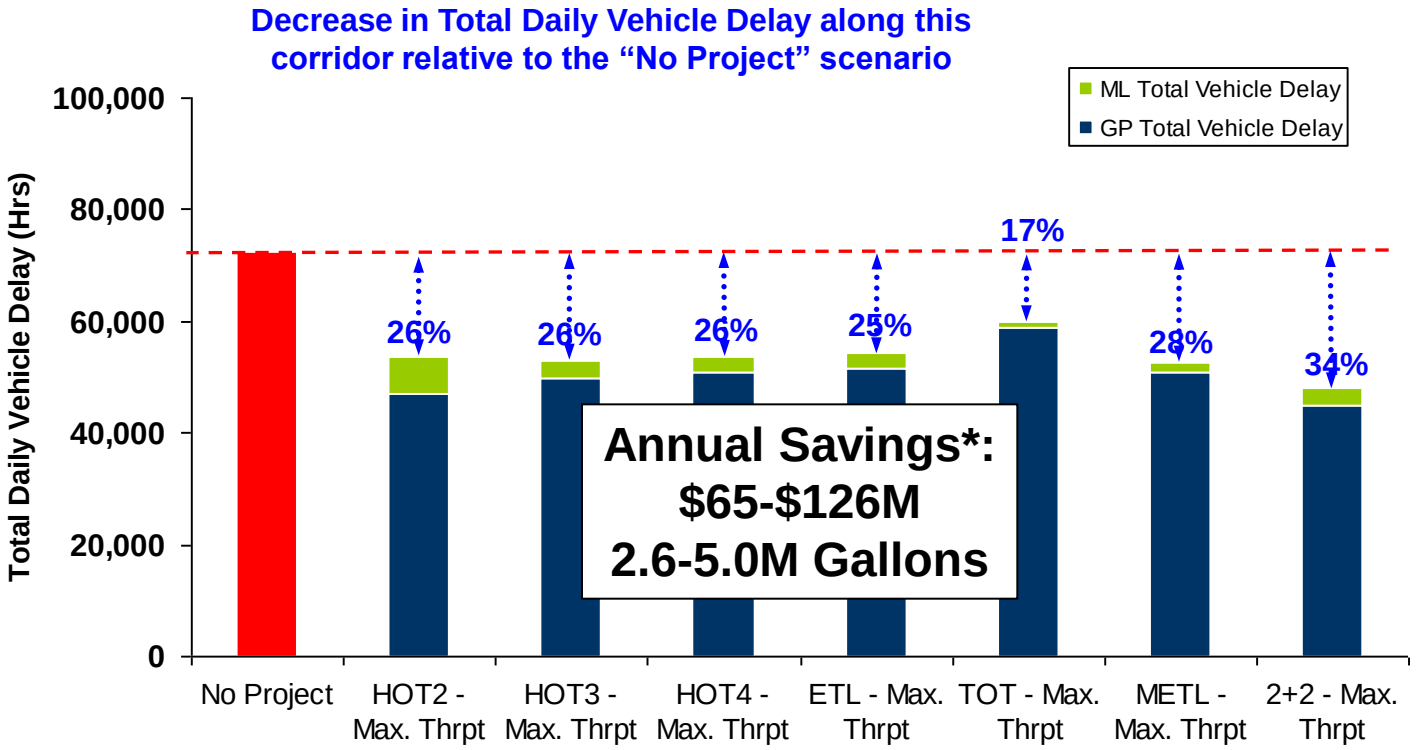


*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Revenue policy and high end of range associated with 2+2 Maximum Revenue policy.

Distance ≈ 14 Miles

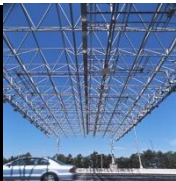
I-285 East Corridor
– Transportation User Benefits (2030 Max Throughput)



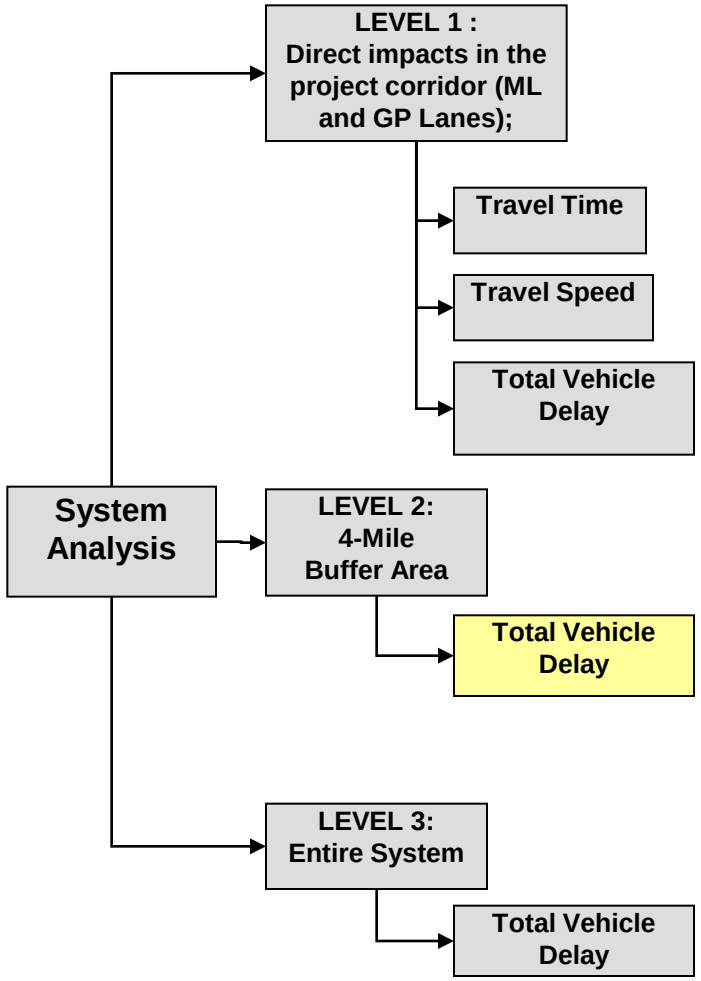


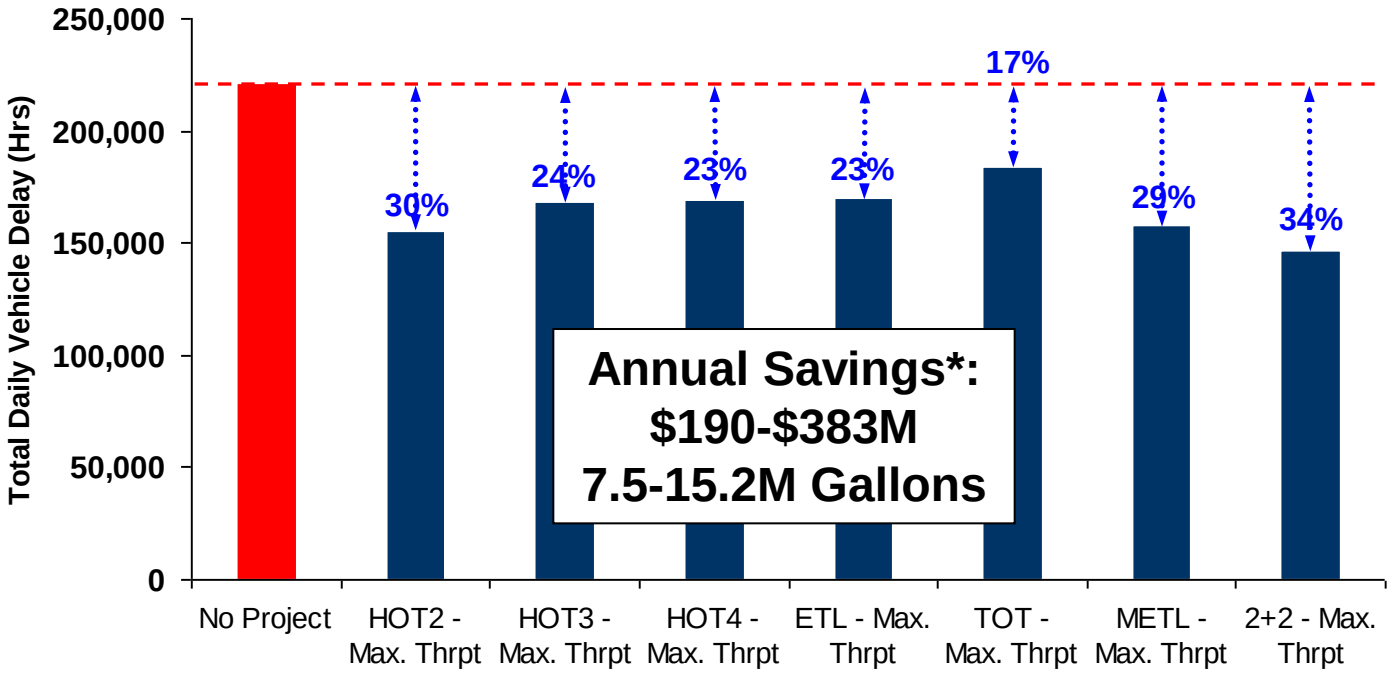
*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 14 Miles



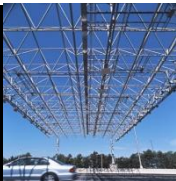
I-285 East Corridor
– Transportation User Benefits (2030)



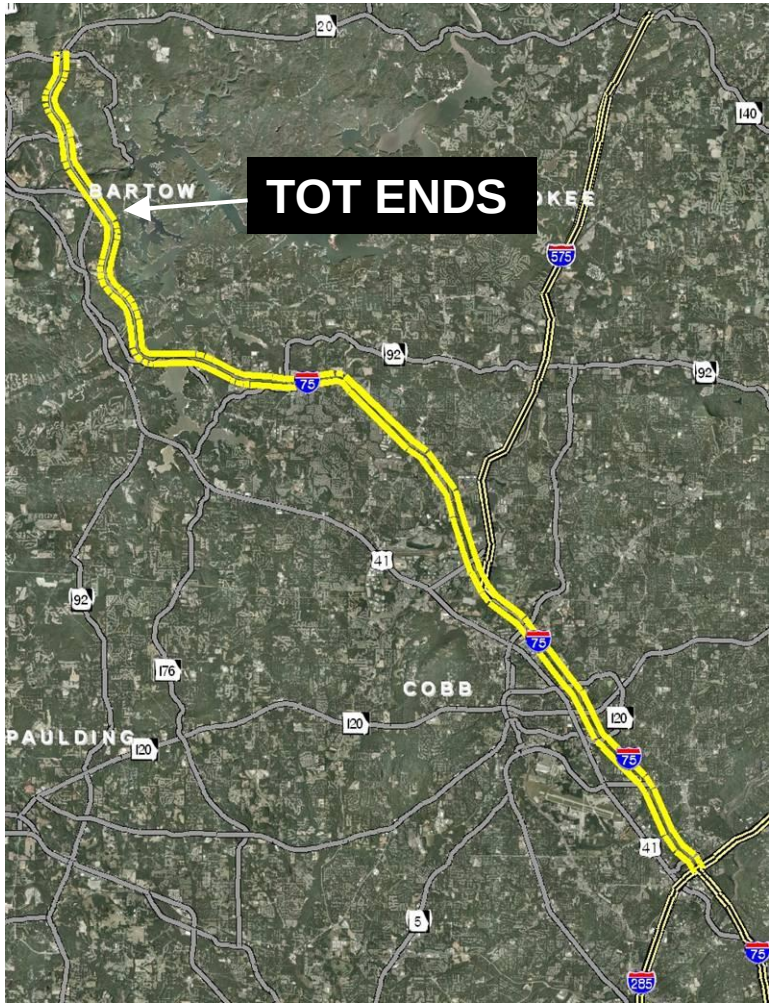


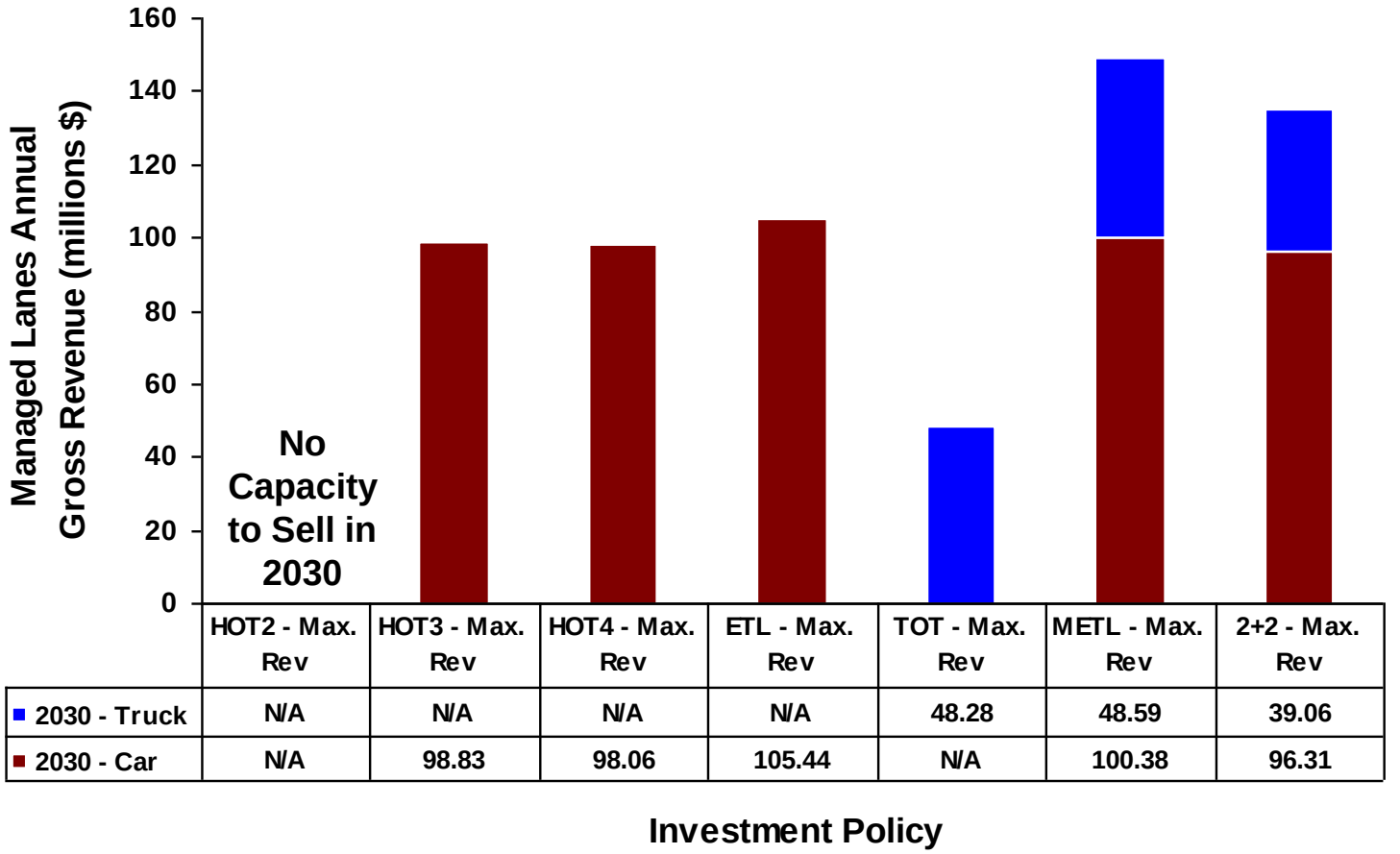
*Potential range of savings realized in this area, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 14 Miles



I-75 North Corridor – Max Revenue Forecast

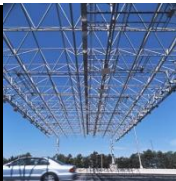




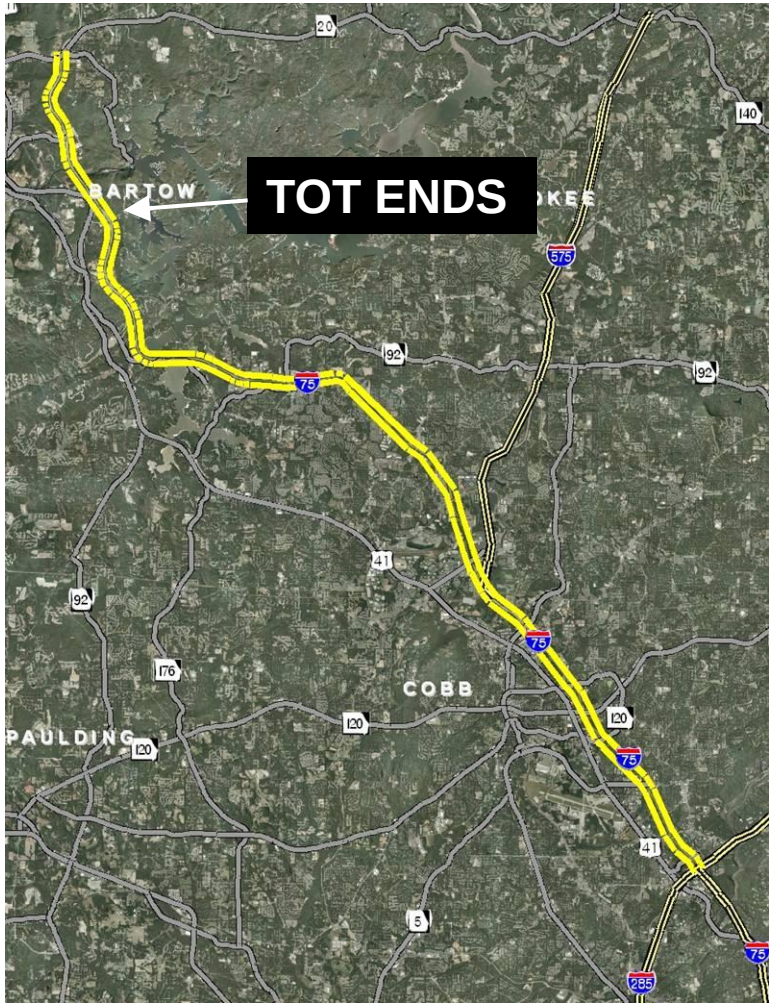
	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
2030 - Truck	N/A	N/A	N/A	N/A	48.28	48.59	39.06
2030 - Car	N/A	98.83	98.06	105.44	N/A	100.38	96.31

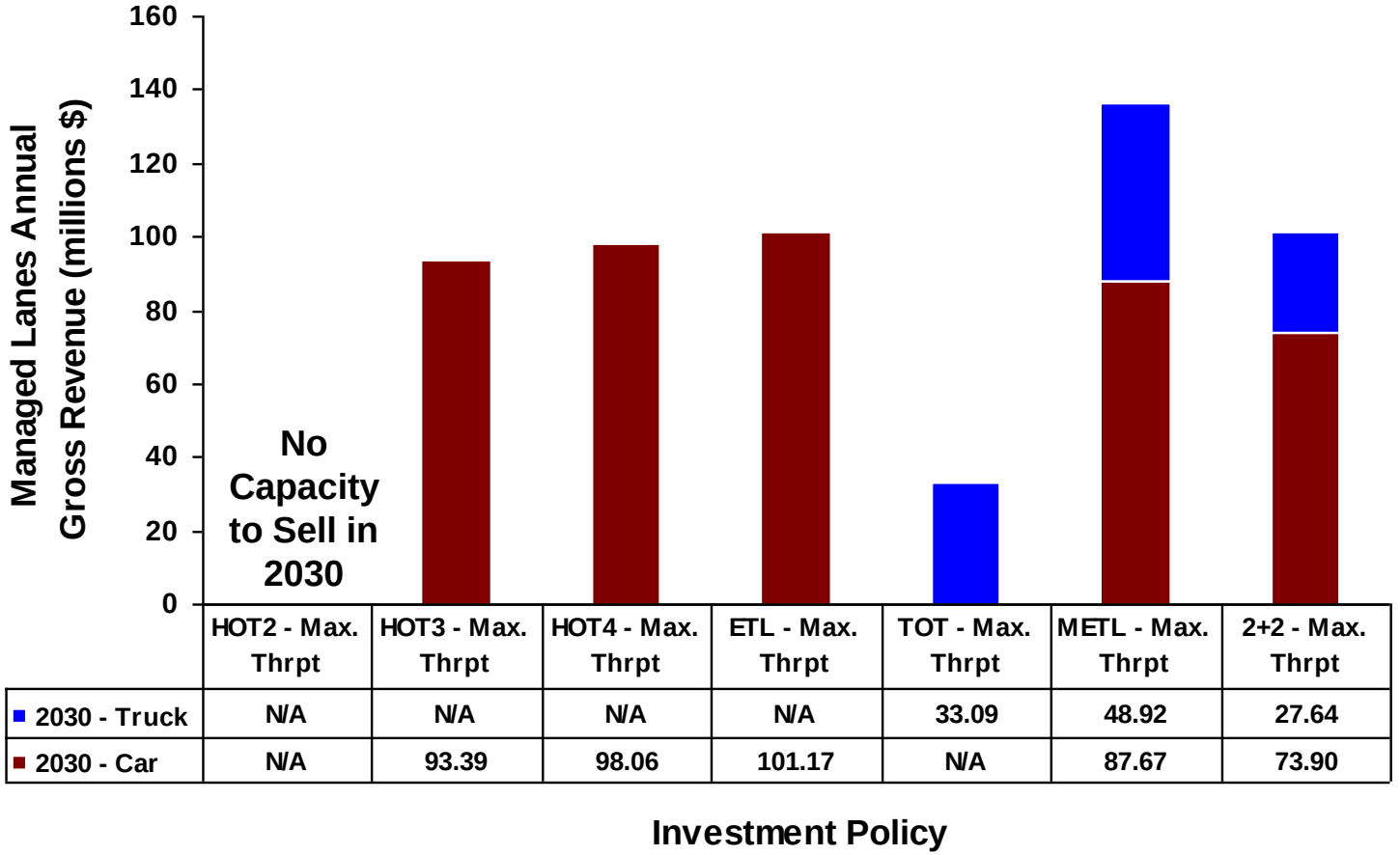
Investment Policy

Distance ≈ 30 Miles



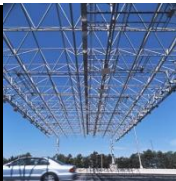
I-75 North Corridor – Max Throughput Forecast



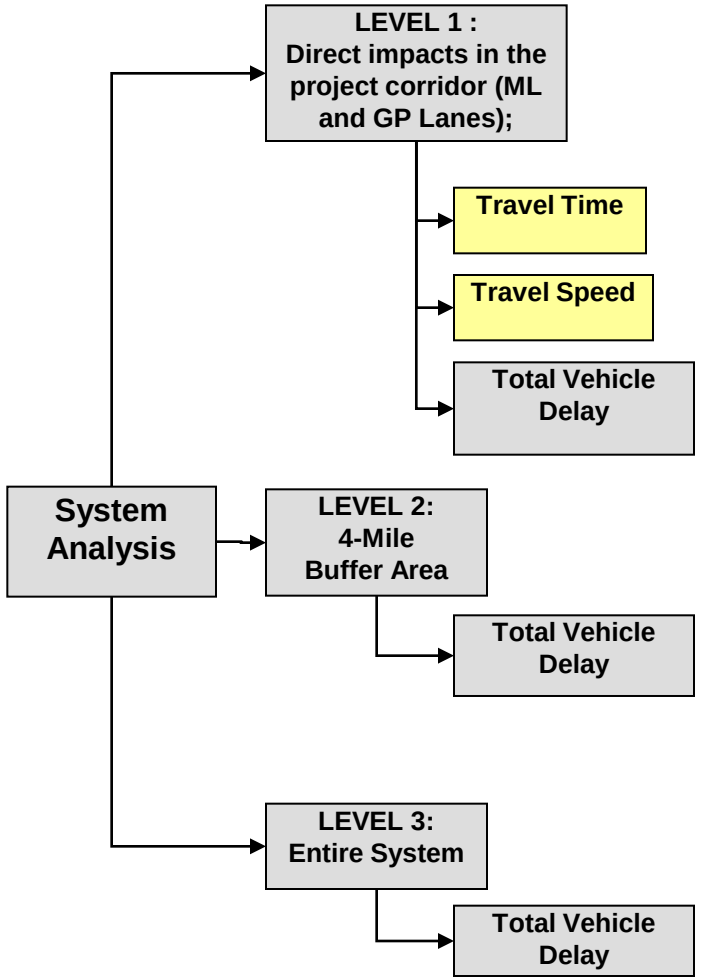


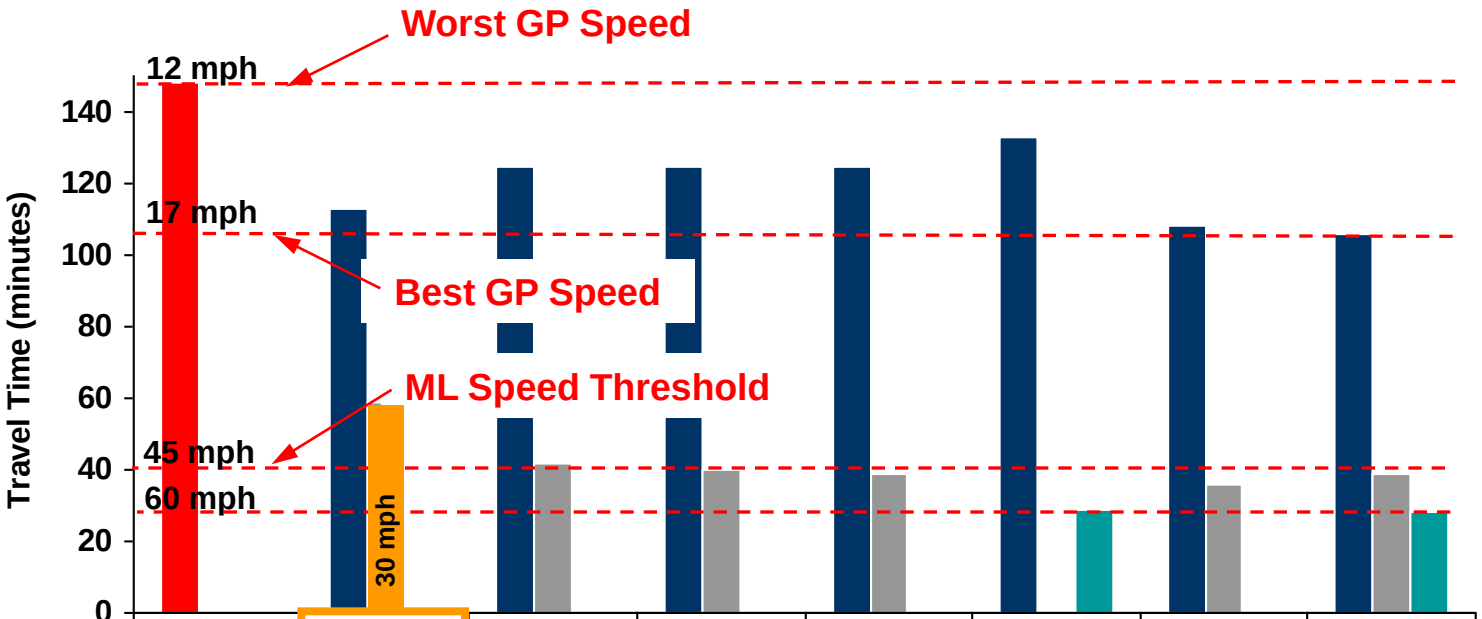
	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
2030 - Truck	N/A	N/A	N/A	N/A	33.09	48.92	27.64
2030 - Car	N/A	93.39	98.06	101.17	N/A	87.67	73.90

Distance ≈ 30 Miles



I-75 North Corridor
– Transportation User Benefits (2030 Max Revenue)





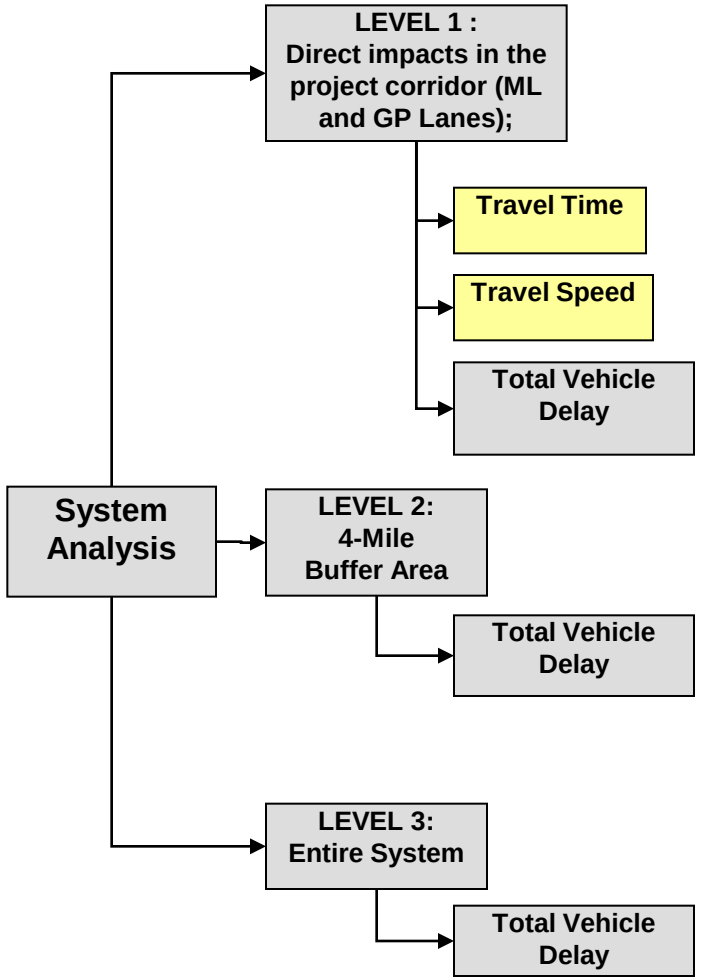
	No Project	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
GP Travel Time	148	113	125	125	125	133	108	106
ML Travel Time	N/A	59	42	40	39	N/A	36	39
TL Travel Time	N/A	N/A	N/A	N/A	N/A	29	N/A	28

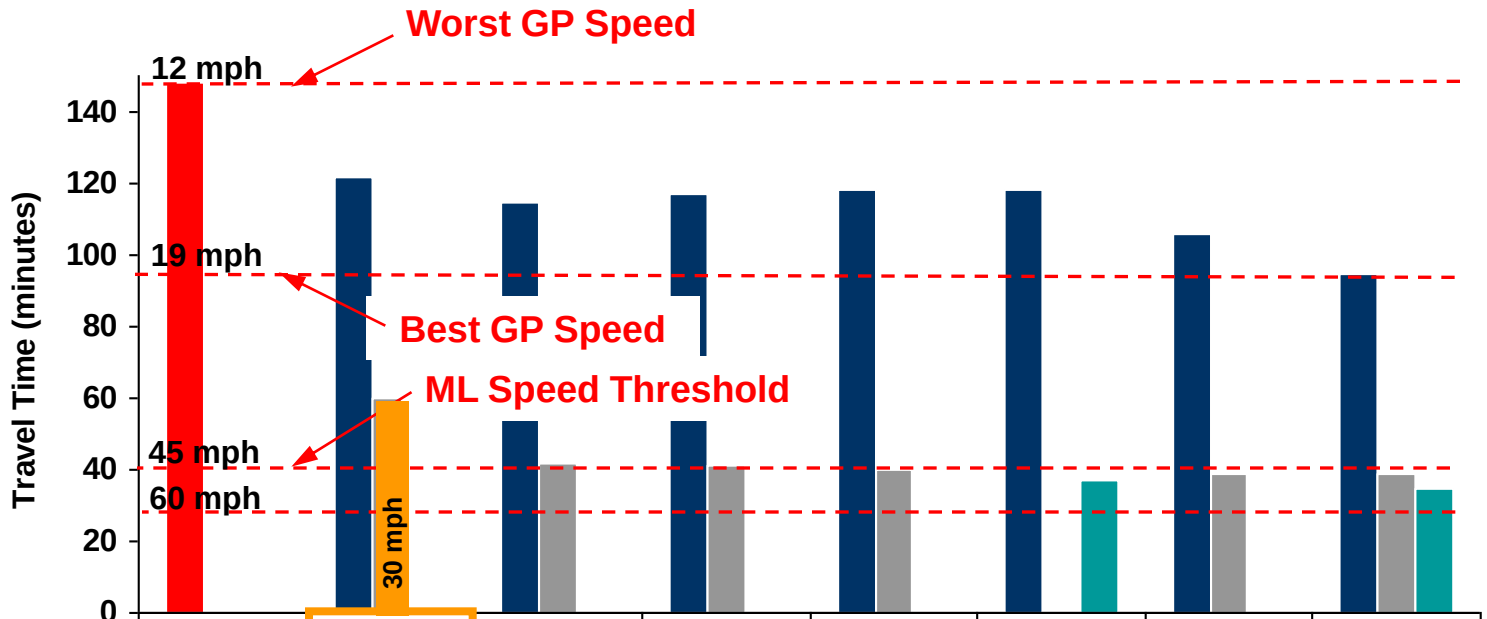
Investment Policy

- **Distance ≈ 30 Miles**
- **GP Travel Speed: 12 - 19 mph**
- **ML Travel Speed: 45 - 50 mph**
- **TL Travel Speed: 45 - 60 mph**



I-75 North Corridor
– Transportation User Benefits (2030 Max Throughput)





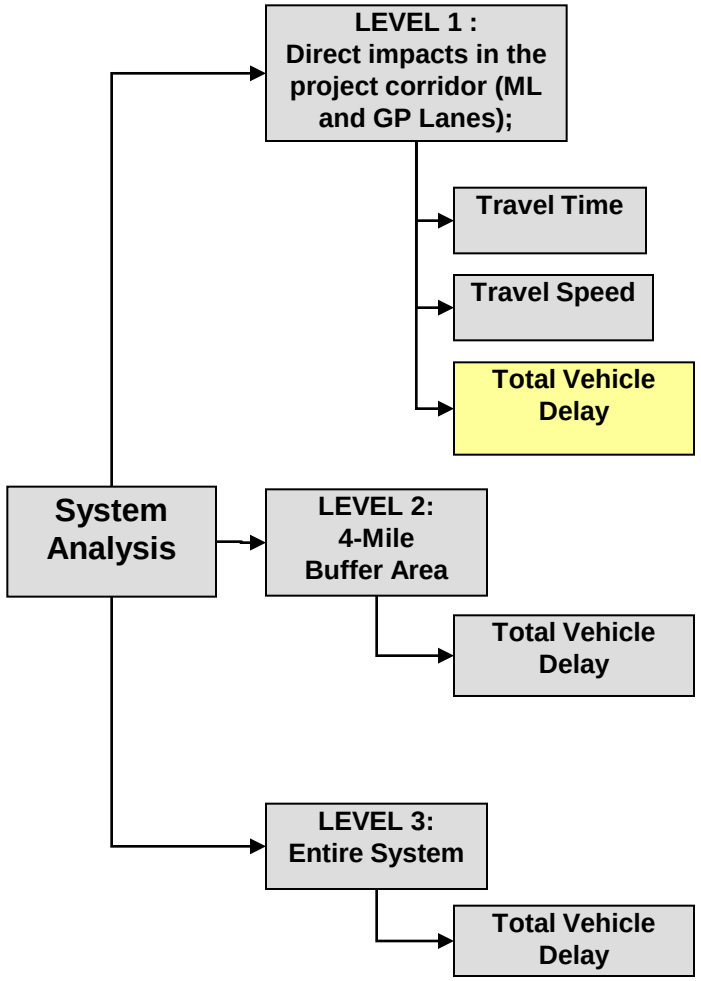
	No Project	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
GP Travel Time	148	122	115	117	118	118	106	95
ML Travel Time	N/A	60	42	41	40	N/A	39	39
TL Travel Time	N/A	N/A	N/A	N/A	N/A	37	N/A	35

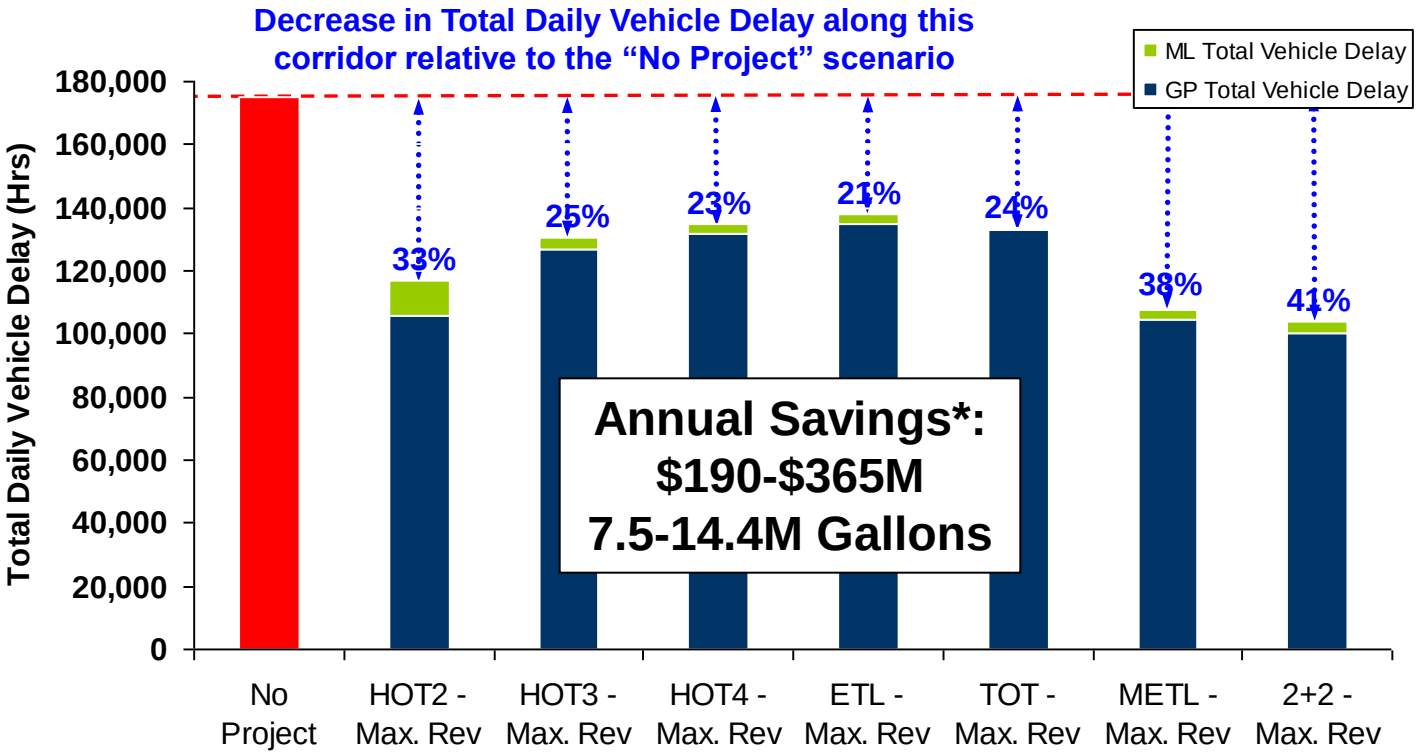
Investment Policy

- **Distance ≈ 30 Miles**
- **GP Travel Speed: 12 - 19 mph**
- **ML Travel Speed: 45 - 50 mph**
- **TL Travel Speed: 45 - 60 mph**



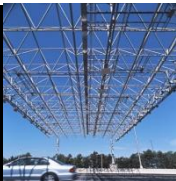
I-75 North Corridor
– Transportation User Benefits (2030 Max Revenue)



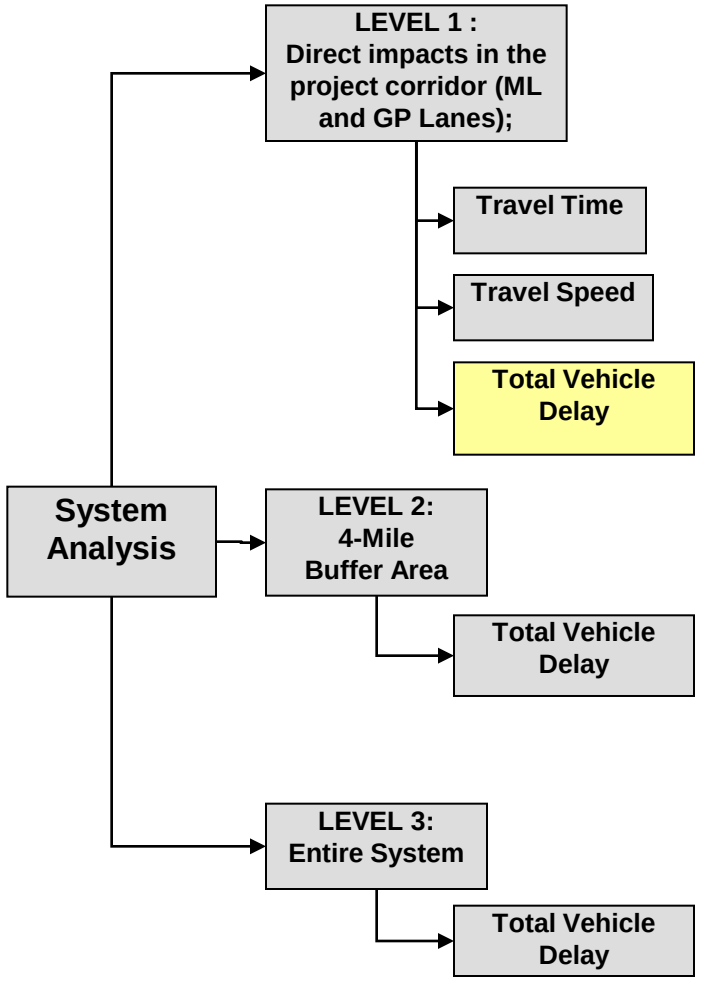


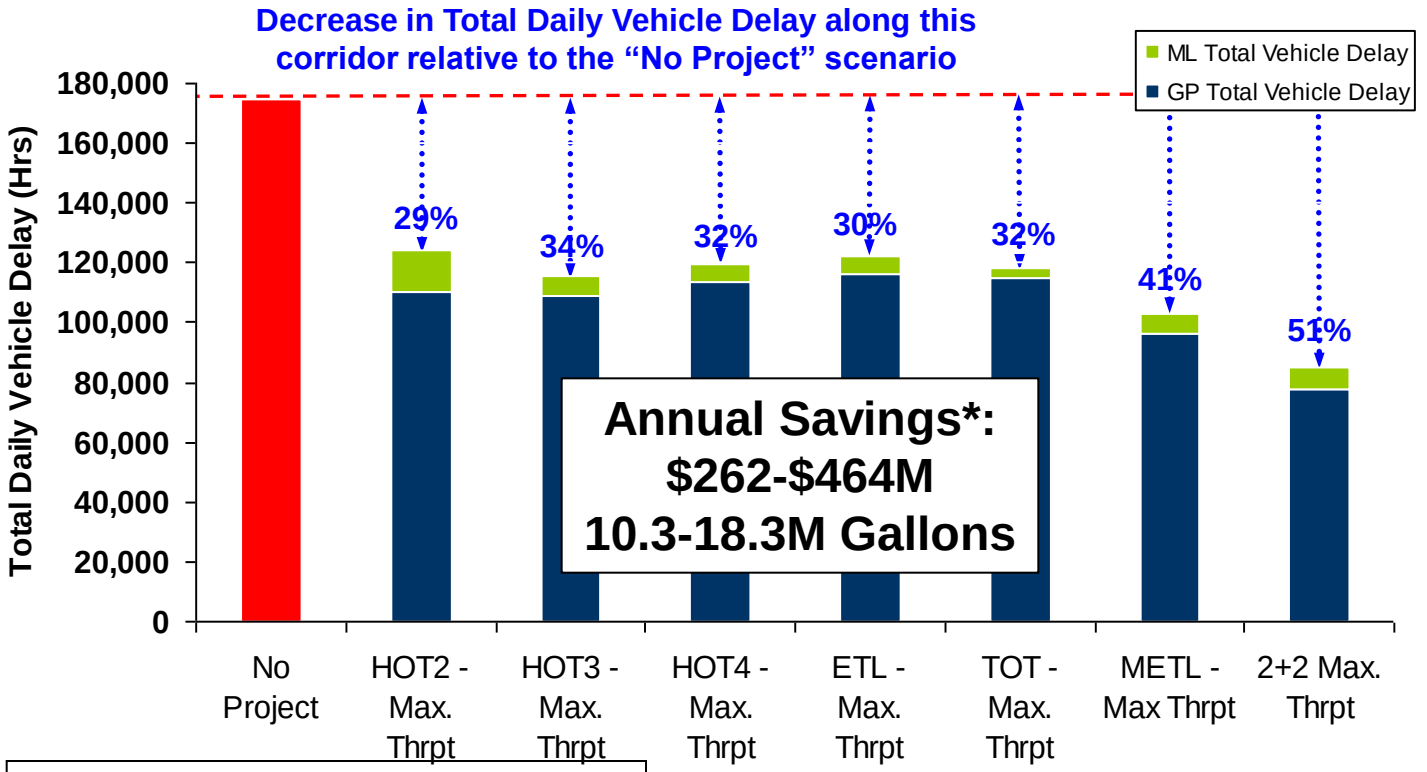
*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Revenue policy and high end of range associated with 2+2 Maximum Revenue policy.

Distance ≈ 30 Miles



I-75 North Corridor
– Transportation User Benefits (2030 Max Throughput)





*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Throughput policy and high end of range associated with 2+2 Maximum Throughput policy.

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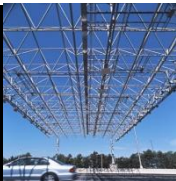
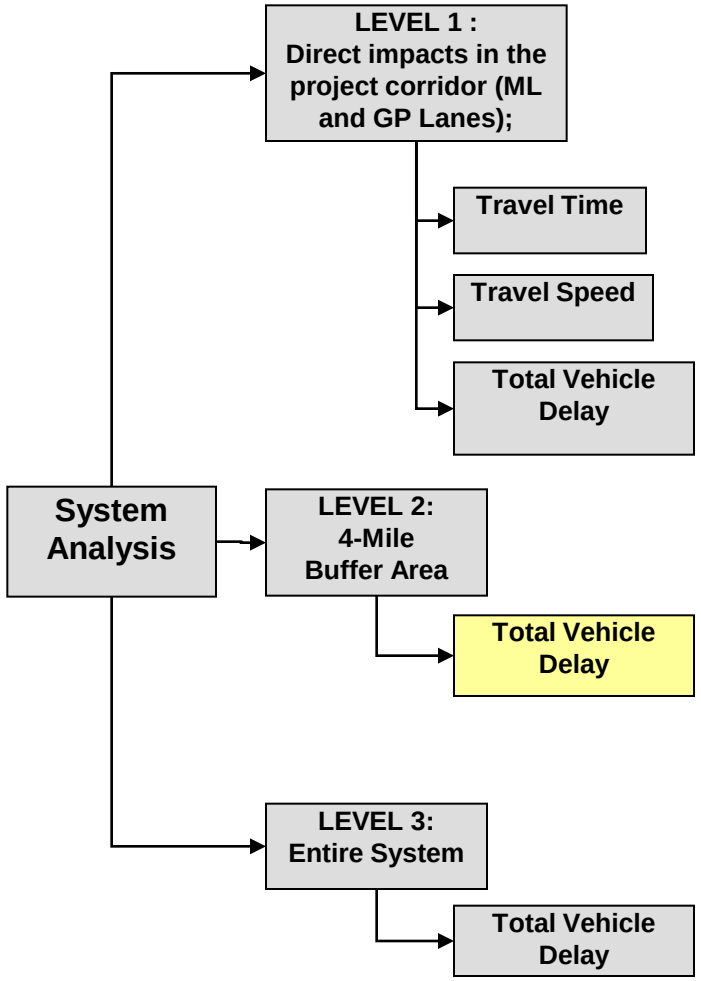
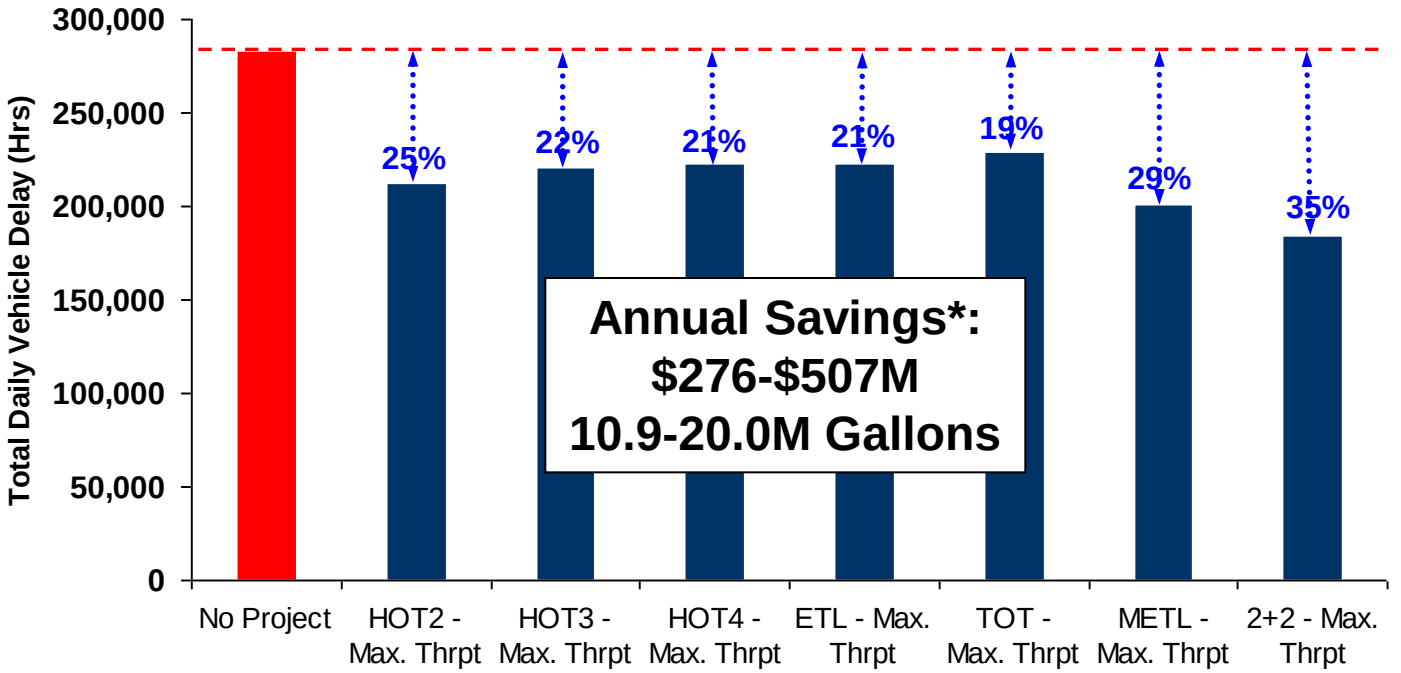


I-75 North Corridor
– Transportation User Benefits (2030 Max Throughput)





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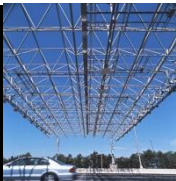
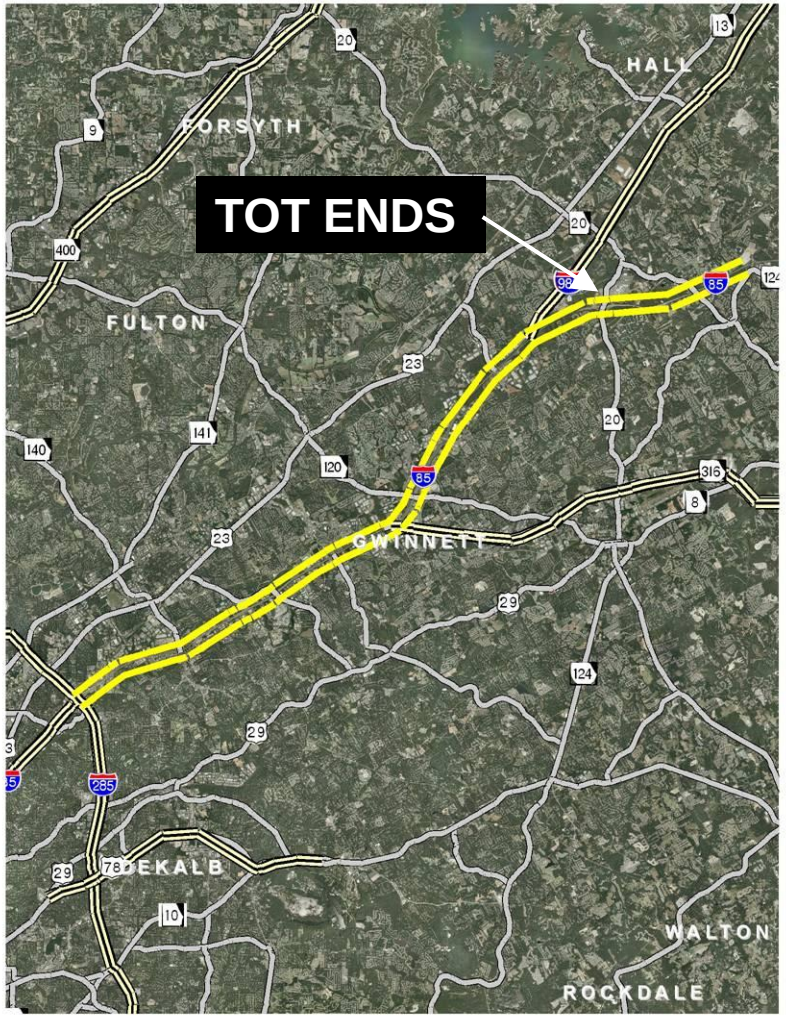
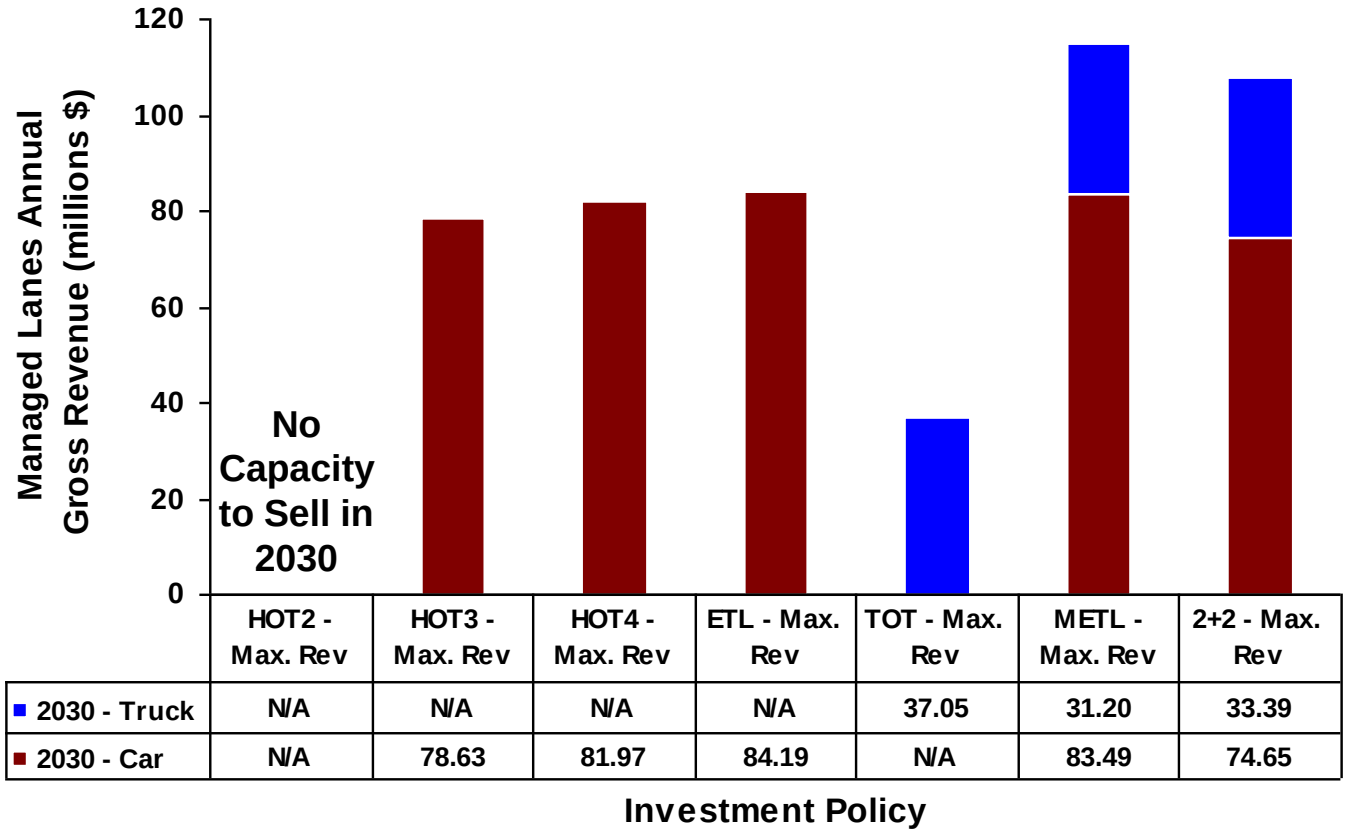


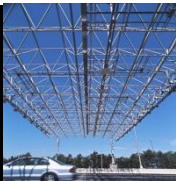
I-85 North Corridor – Max Revenue Forecast



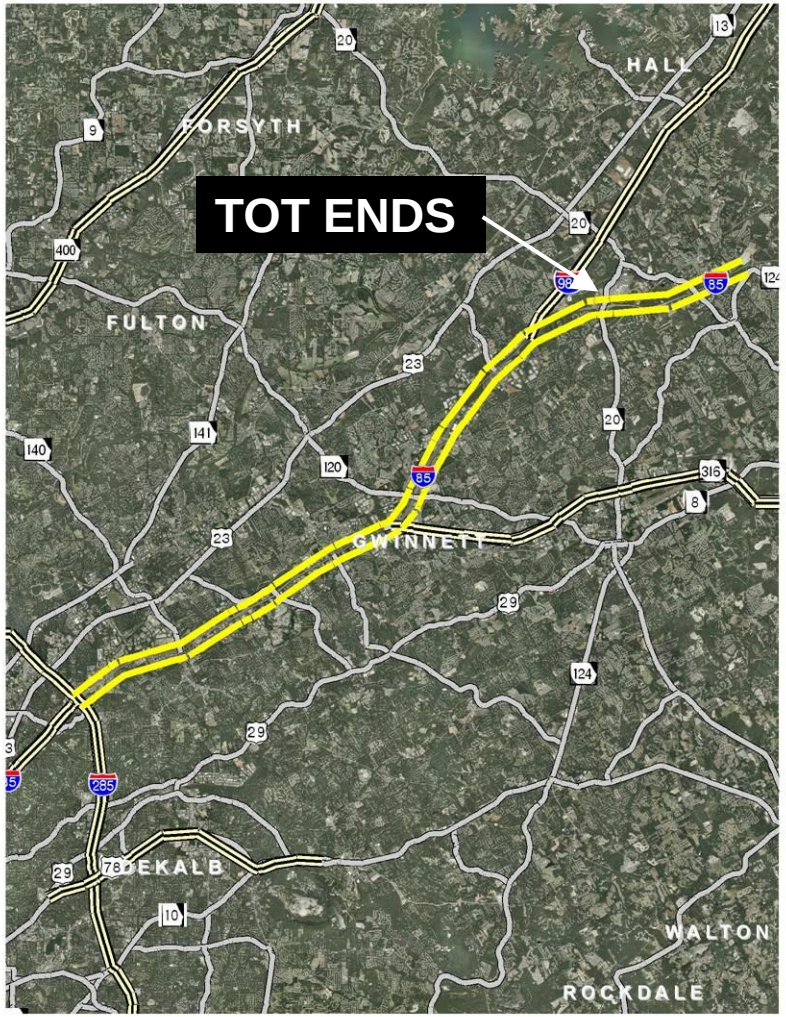


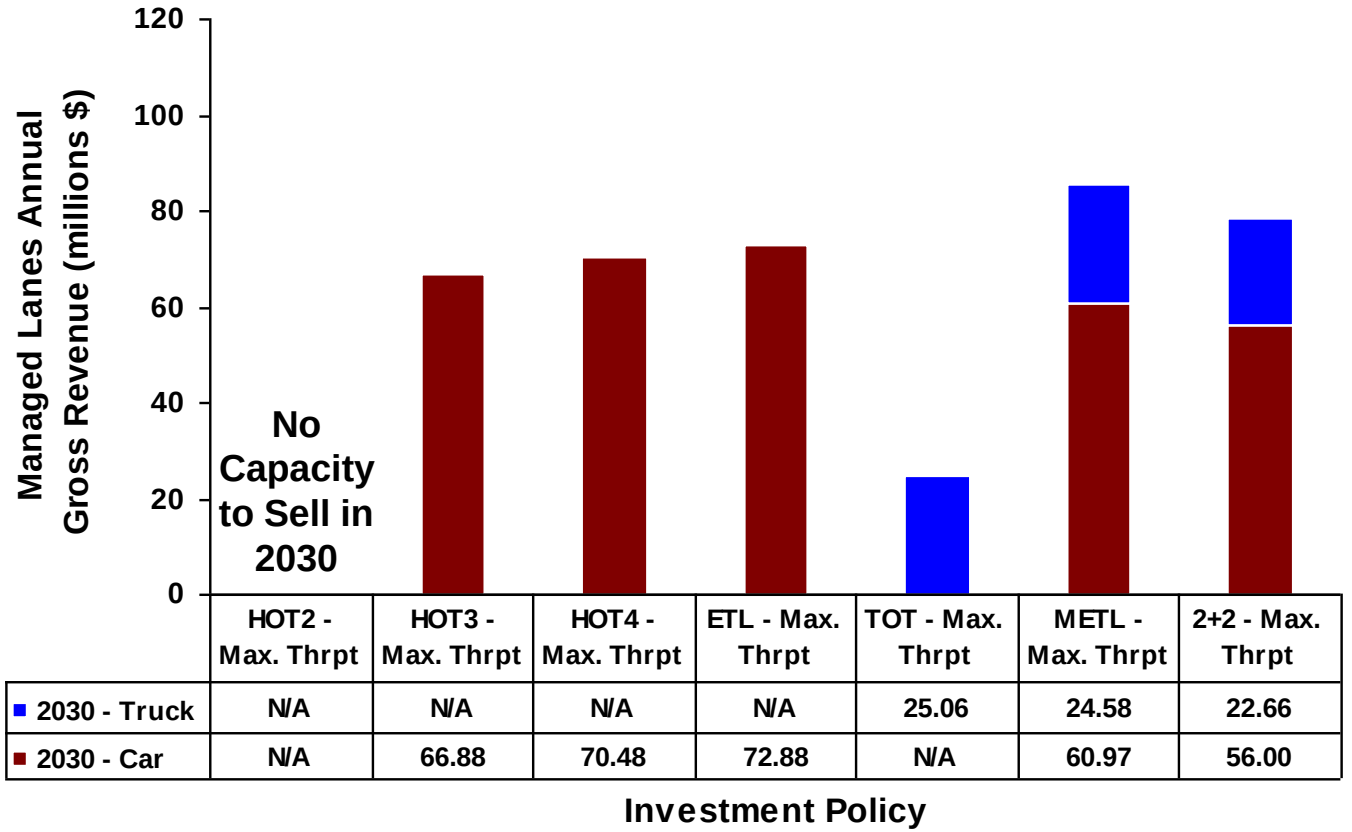
	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
2030 - Truck	N/A	N/A	N/A	N/A	37.05	31.20	33.39
2030 - Car	N/A	78.63	81.97	84.19	N/A	83.49	74.65

Distance ≈ 32 Miles



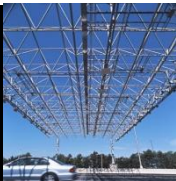
I-85 North Corridor – Max Throughput Forecast



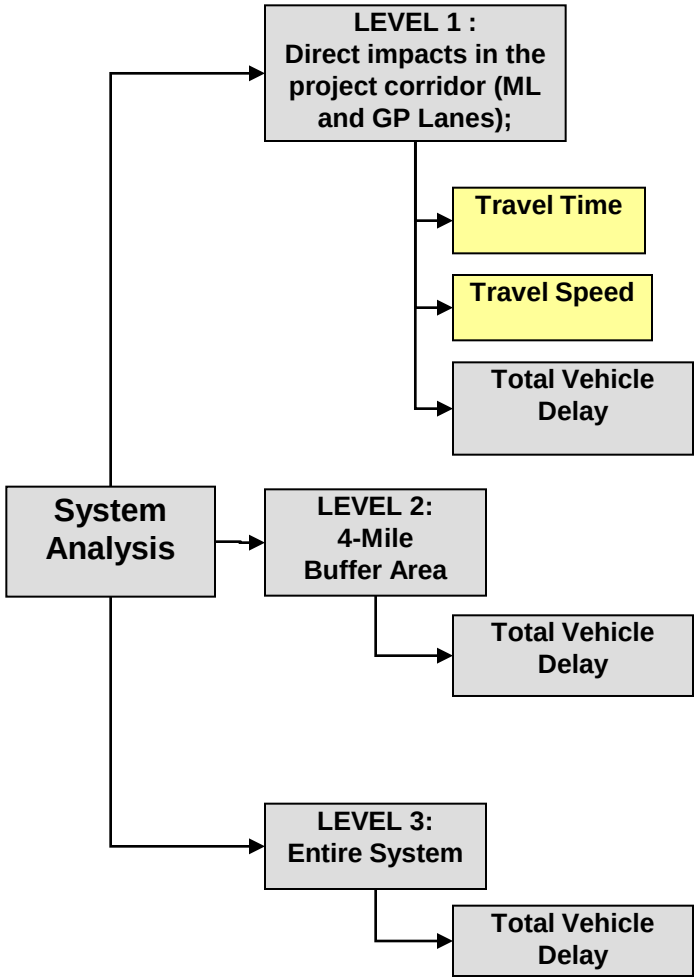


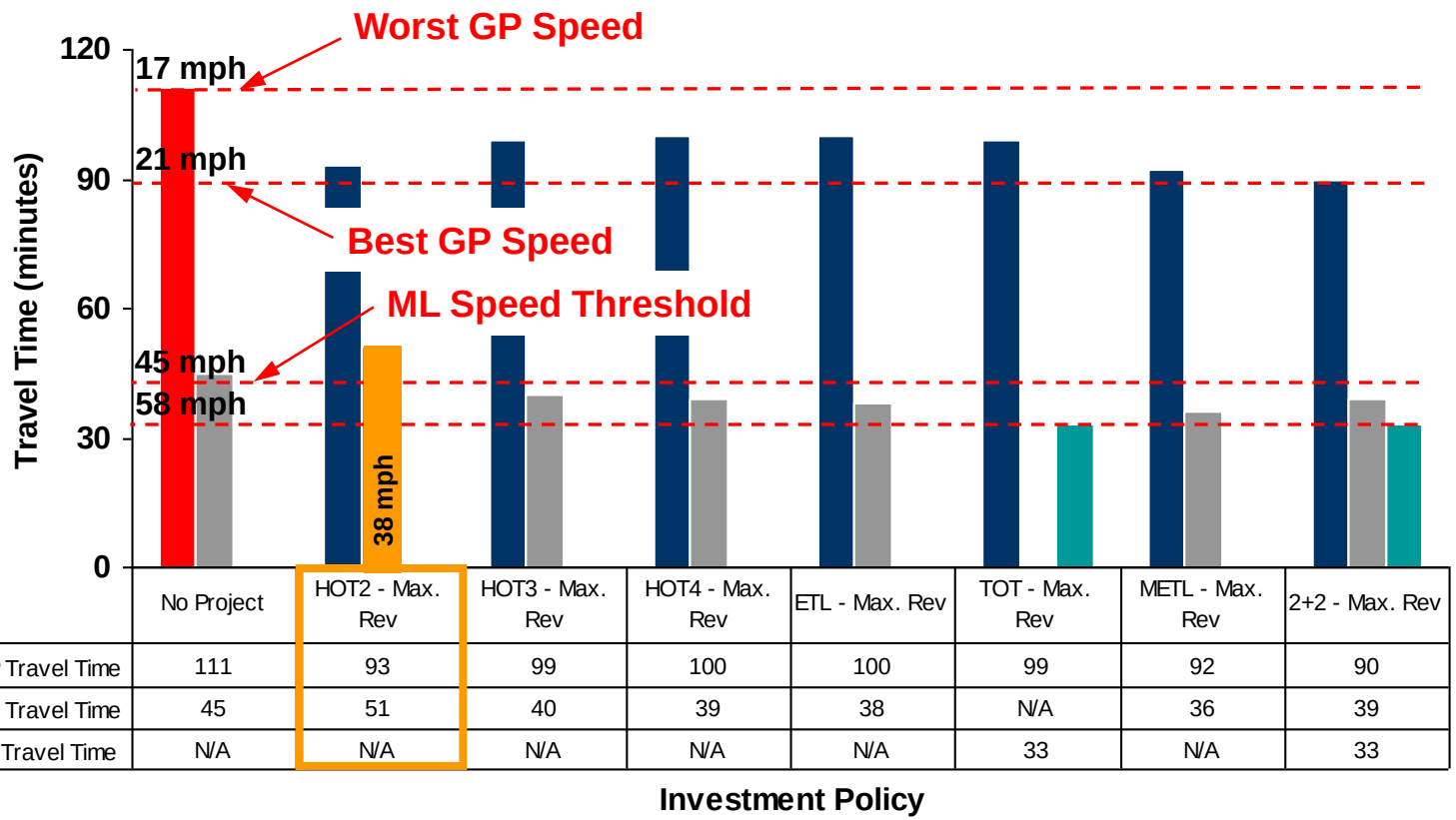
	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
2030 - Truck	N/A	N/A	N/A	N/A	25.06	24.58	22.66
2030 - Car	N/A	66.88	70.48	72.88	N/A	60.97	56.00

Distance ≈ 32 Miles



I-85 North Corridor
– Transportation User Benefits (2030 Max Revenue)



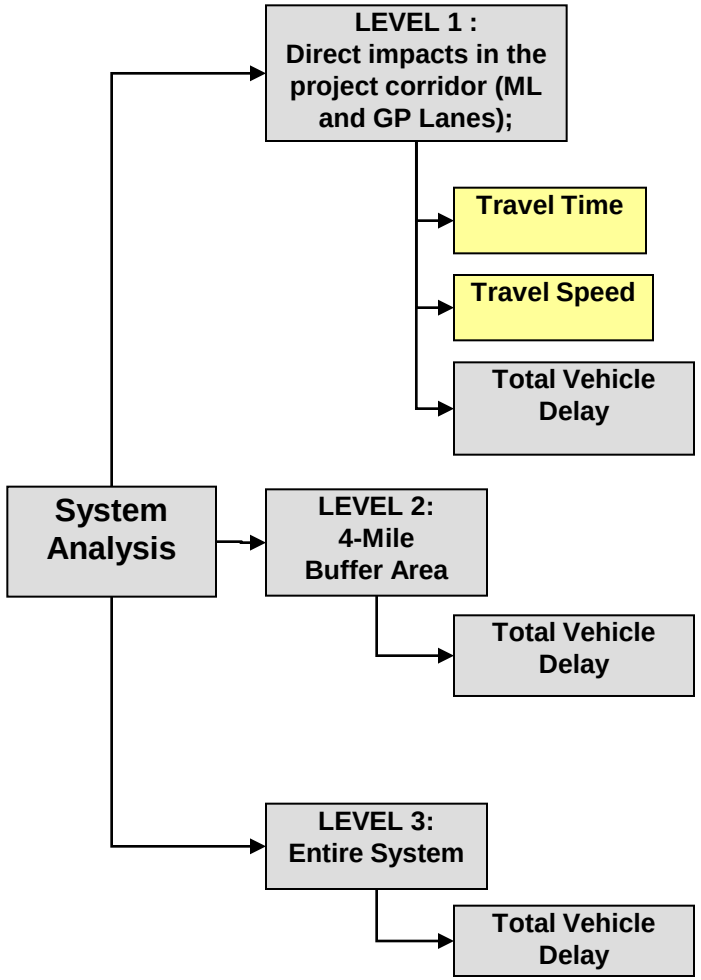


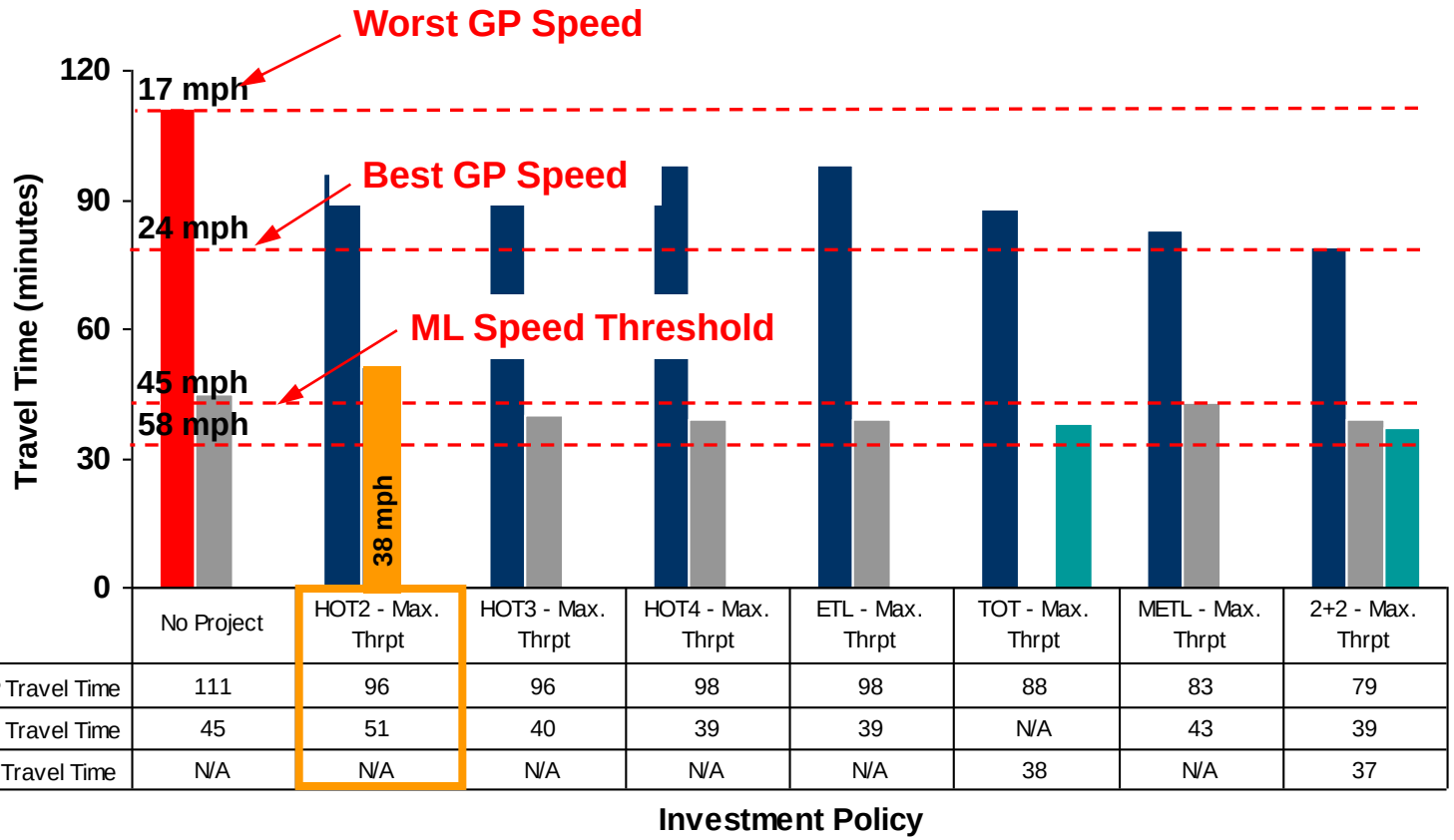
	No Project	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	METL - Max. Rev	2+2 - Max. Rev
GP Travel Time	111	93	99	100	100	99	92	90
ML Travel Time	45	51	40	39	38	N/A	36	39
TL Travel Time	N/A	N/A	N/A	N/A	N/A	33	N/A	33

- **Distance ≈ 32 Miles**
- **GP Travel Speed: 17 - 24 mph**
- **ML Travel Speed: 45 - 53 mph**
- **TL Travel Speed: 50 - 58 mph**



I-85 North Corridor
– Transportation User Benefits (2030 Max Throughput)





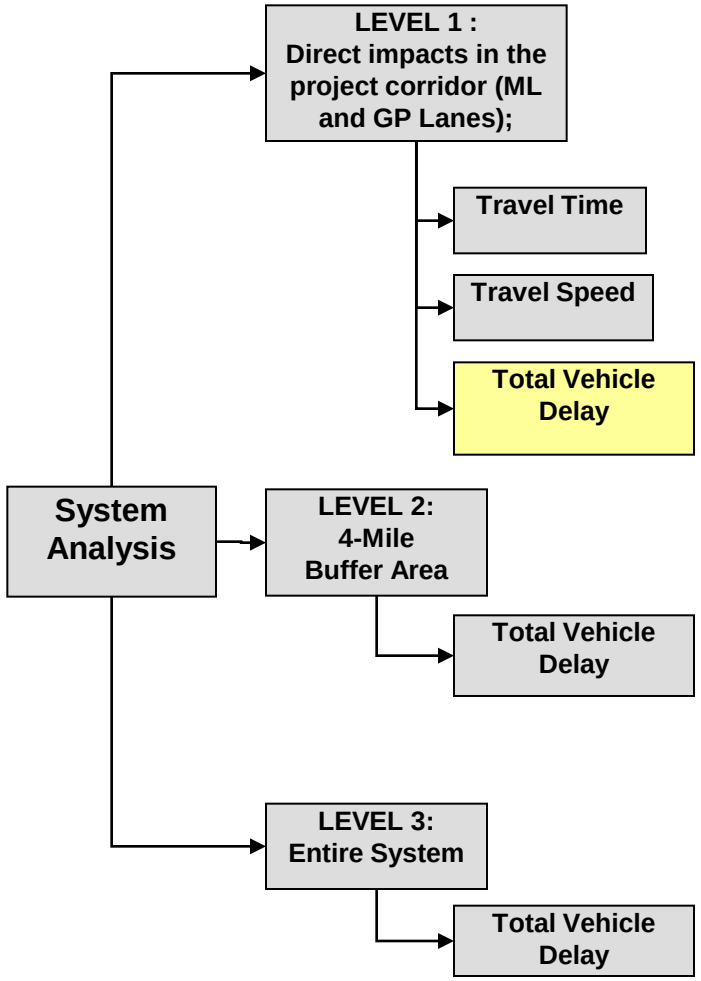
	No Project	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	METL - Max. Thrpt	2+2 - Max. Thrpt
GP Travel Time	111	96	96	98	98	88	83	79
ML Travel Time	45	51	40	39	39	N/A	43	39
TL Travel Time	N/A	N/A	N/A	N/A	N/A	38	N/A	37

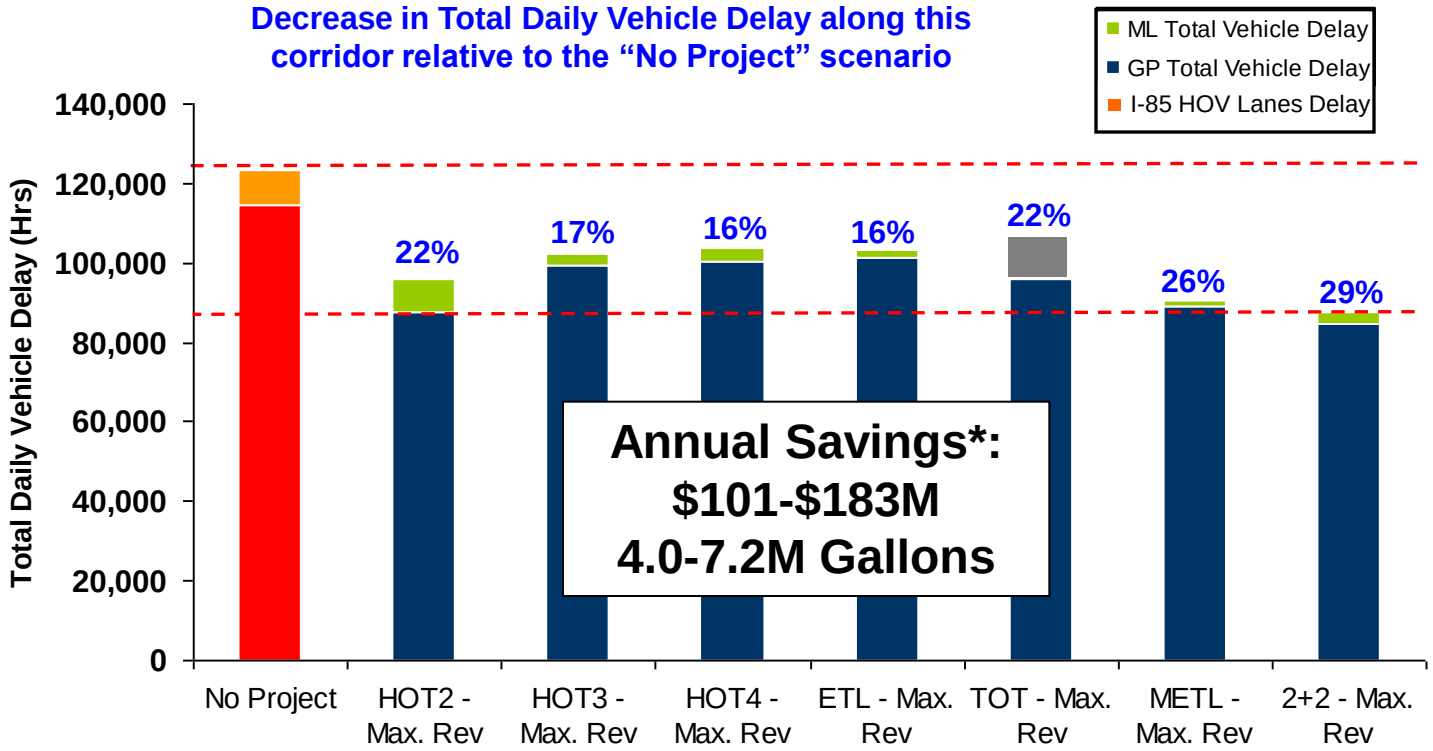
Investment Policy

- **Distance ≈ 32 Miles**
- **GP Travel Speed: 17 - 24 mph**
- **ML Travel Speed: 45 - 53 mph**
- **TL Travel Speed: 50 - 58 mph**



I-85 North Corridor
– Transportation User Benefits (2030 Max Revenue)

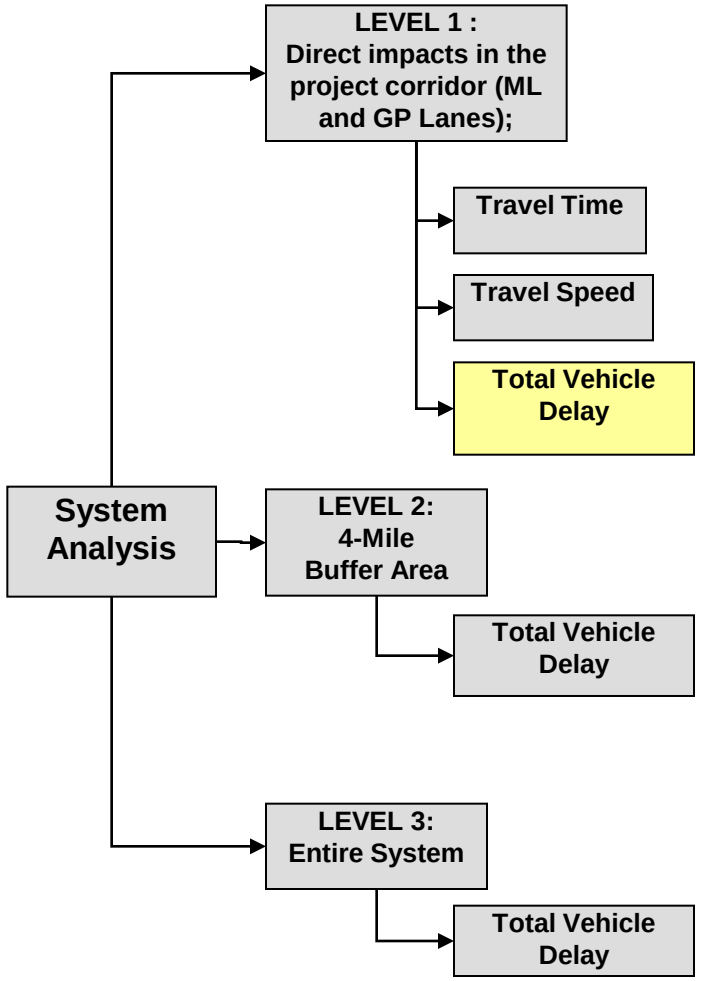


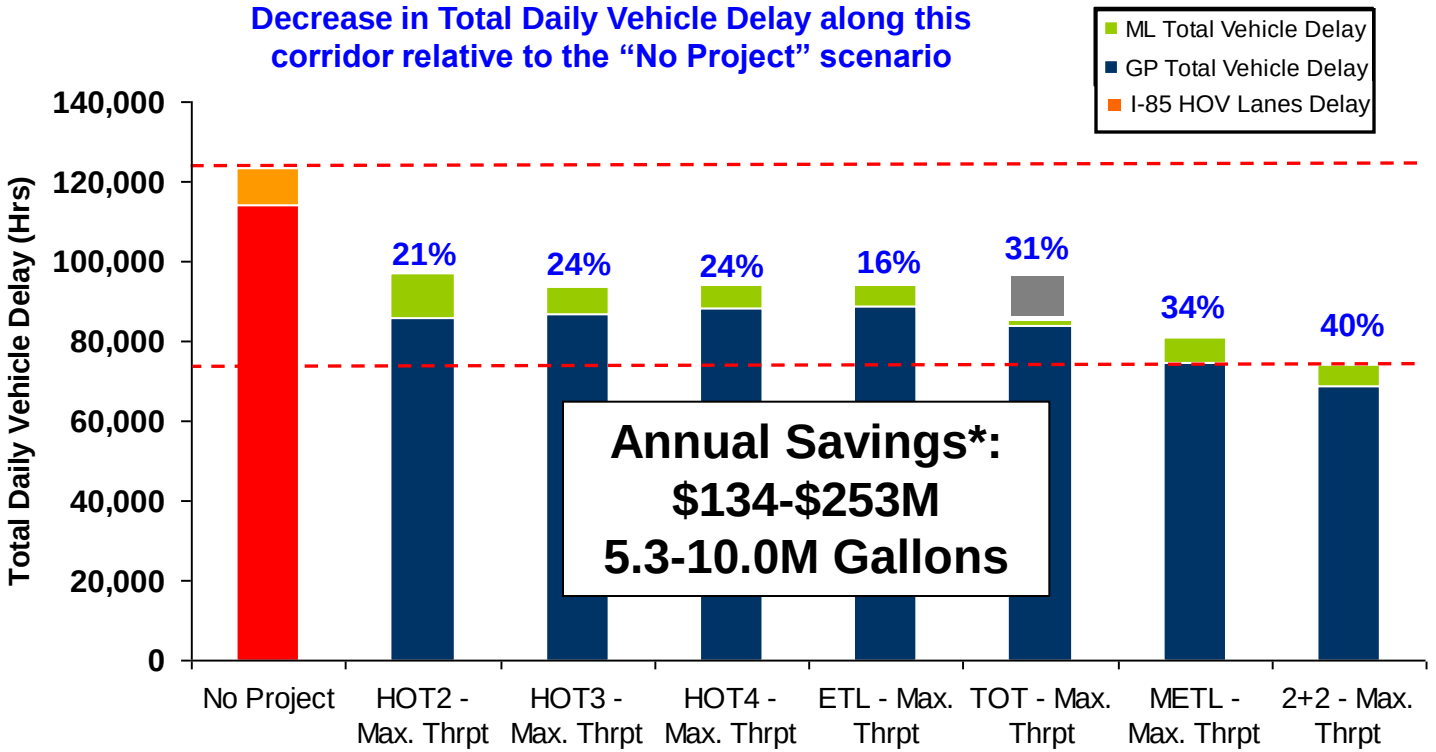


*Potential range of savings realized in this corridor, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Revenue policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 32 Miles

I-85 North Corridor
– Transportation User Benefits (2030 Max Throughput)





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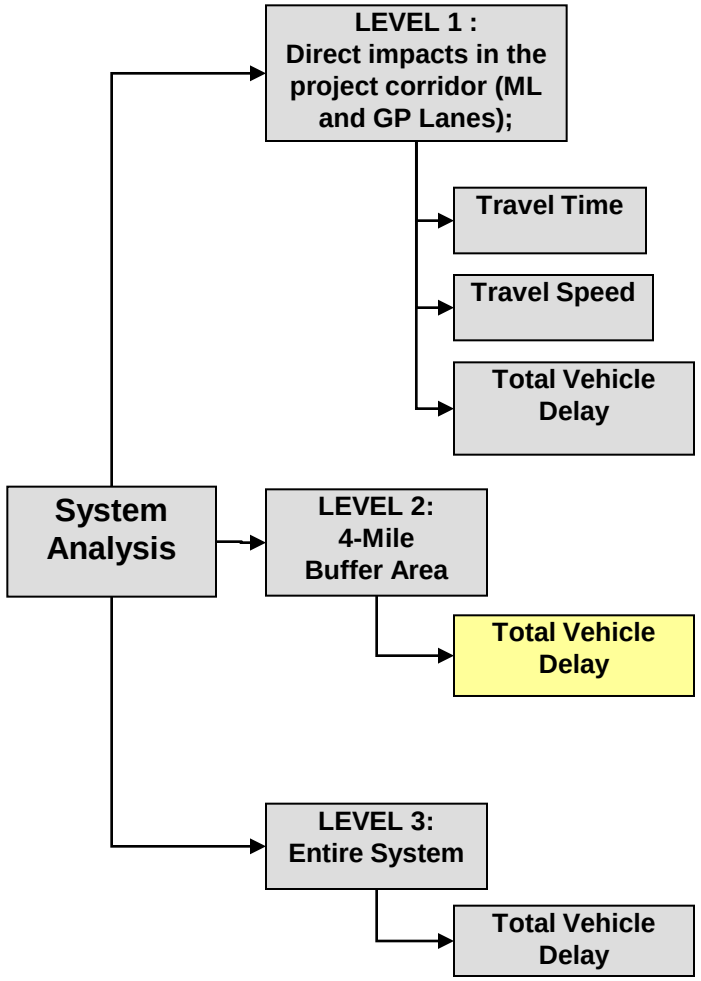
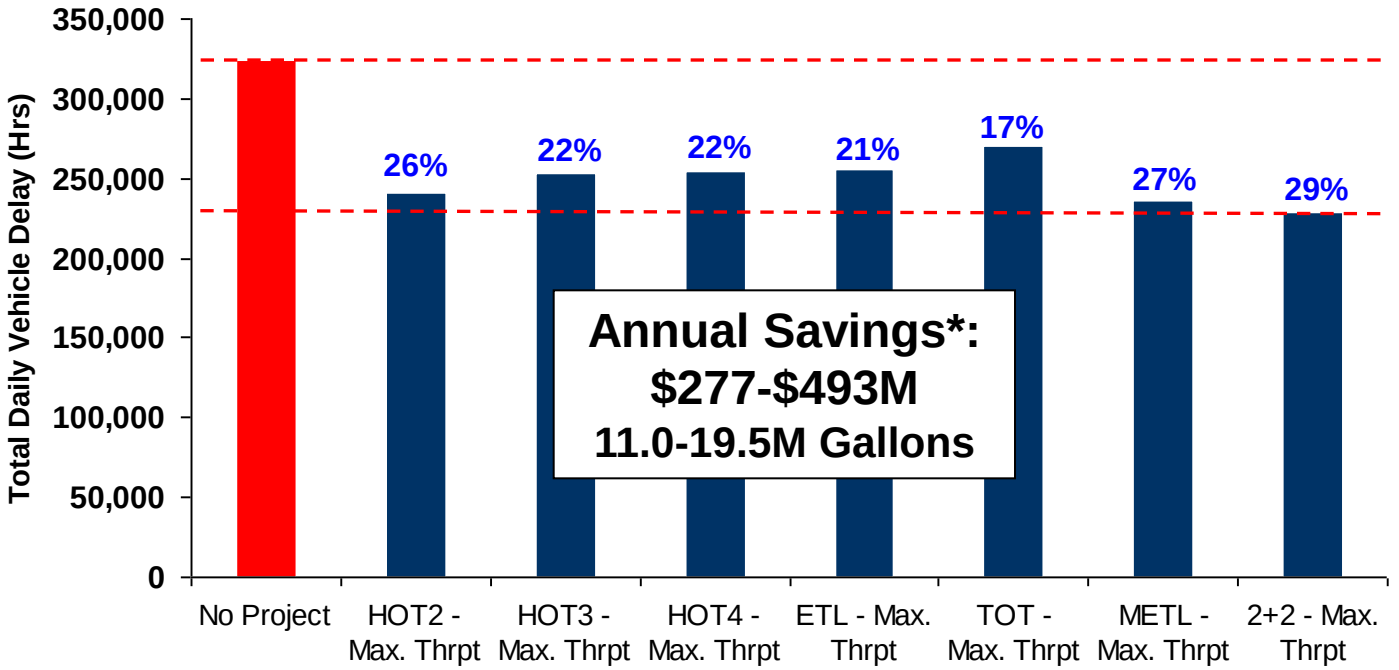
Distance ≈ 32 Miles

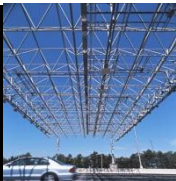
I-85 North Corridor
– Transportation User Benefits (2030 Max Throughput)



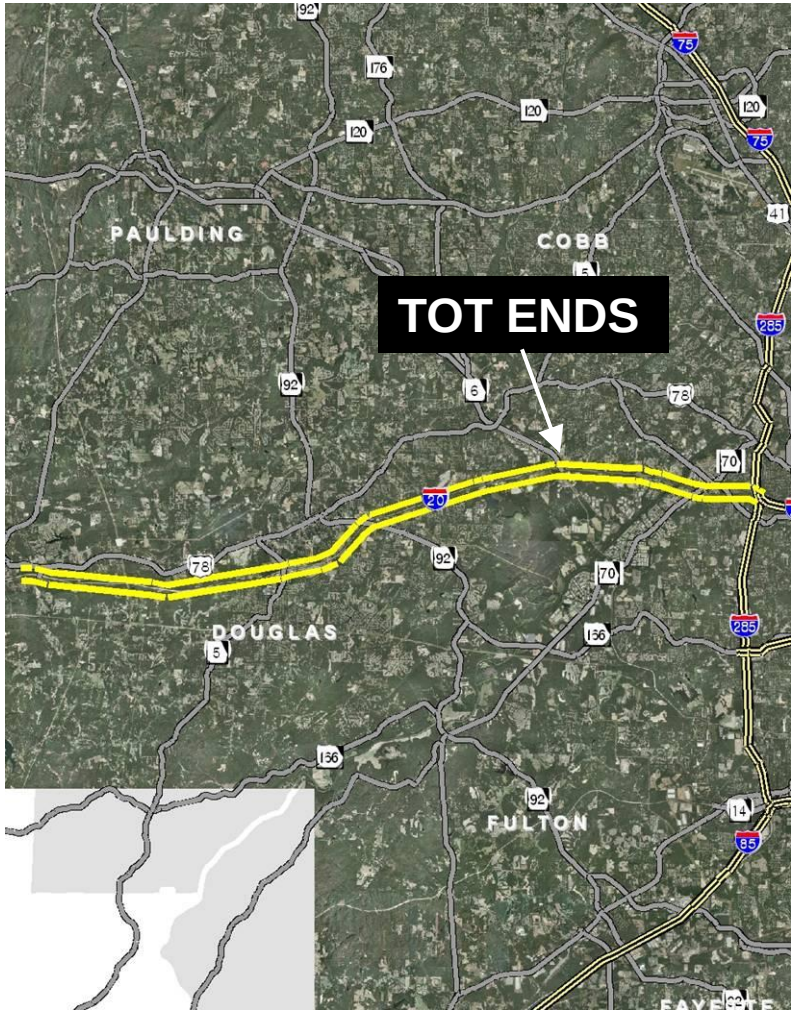


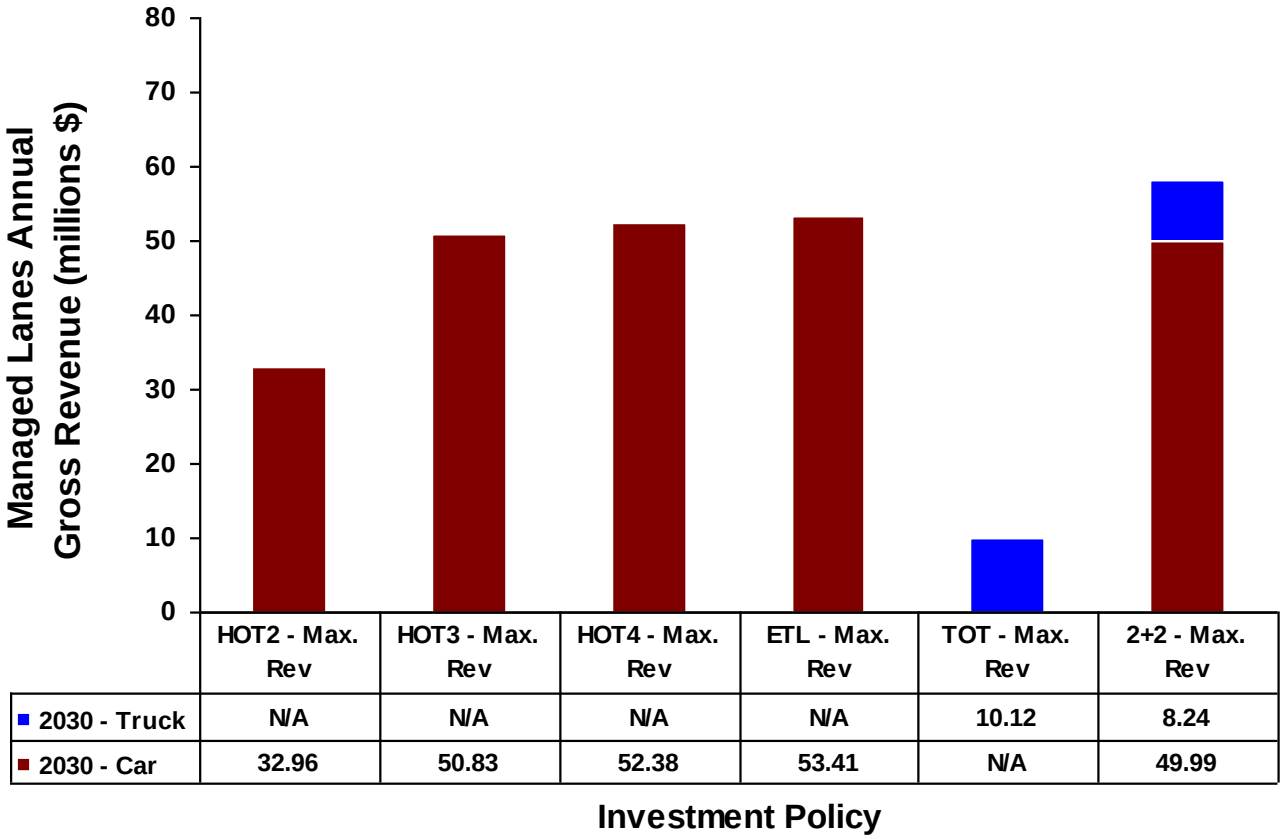
*Potential range of savings realized in this area, in year 2030, if ML are implemented. Numbers derived using Texas Transportation Institute assumptions of $17.20/hr and 0.68 gallons of fuel/hr. Low end of range associated with TOT Maximum Revenue policy and high end of range associated with 2+2 Maximum Throughput policy.

Distance ≈ 32 Miles



I-20 West Corridor – Max Revenue Forecast





	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	2+2 - Max. Rev
2030 - Truck	N/A	N/A	N/A	N/A	10.12	8.24
2030 - Car	32.96	50.83	52.38	53.41	N/A	49.99

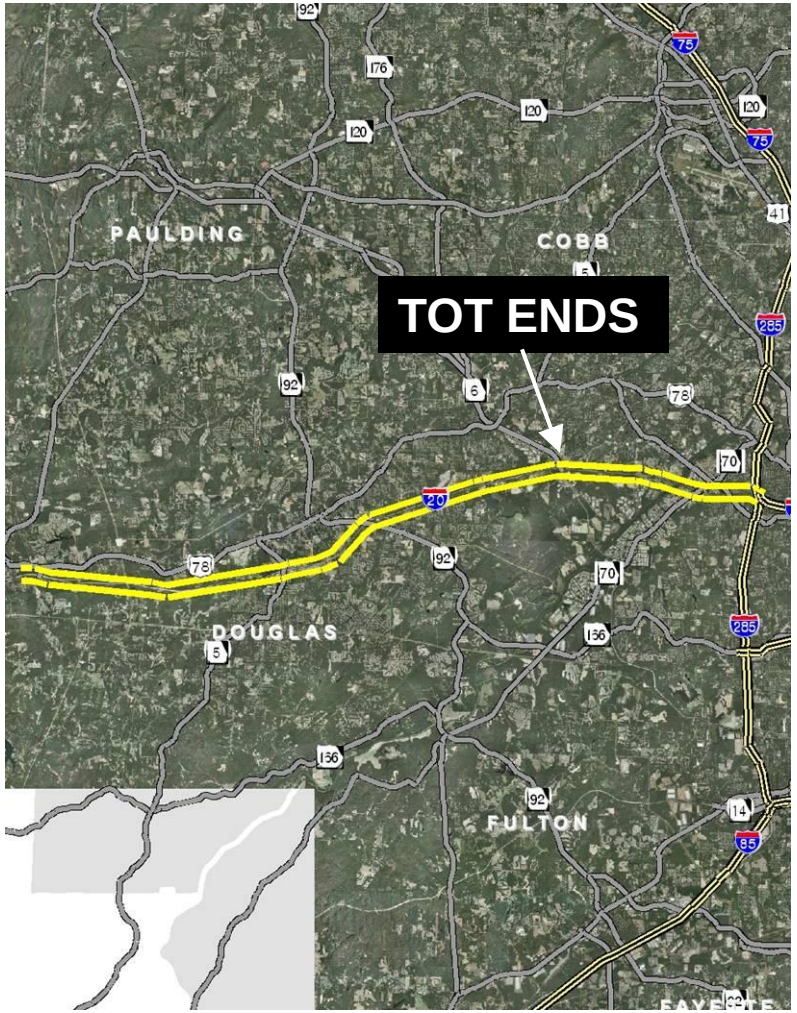
TOT is provided only for the first segment: I-285 to Thornton Road

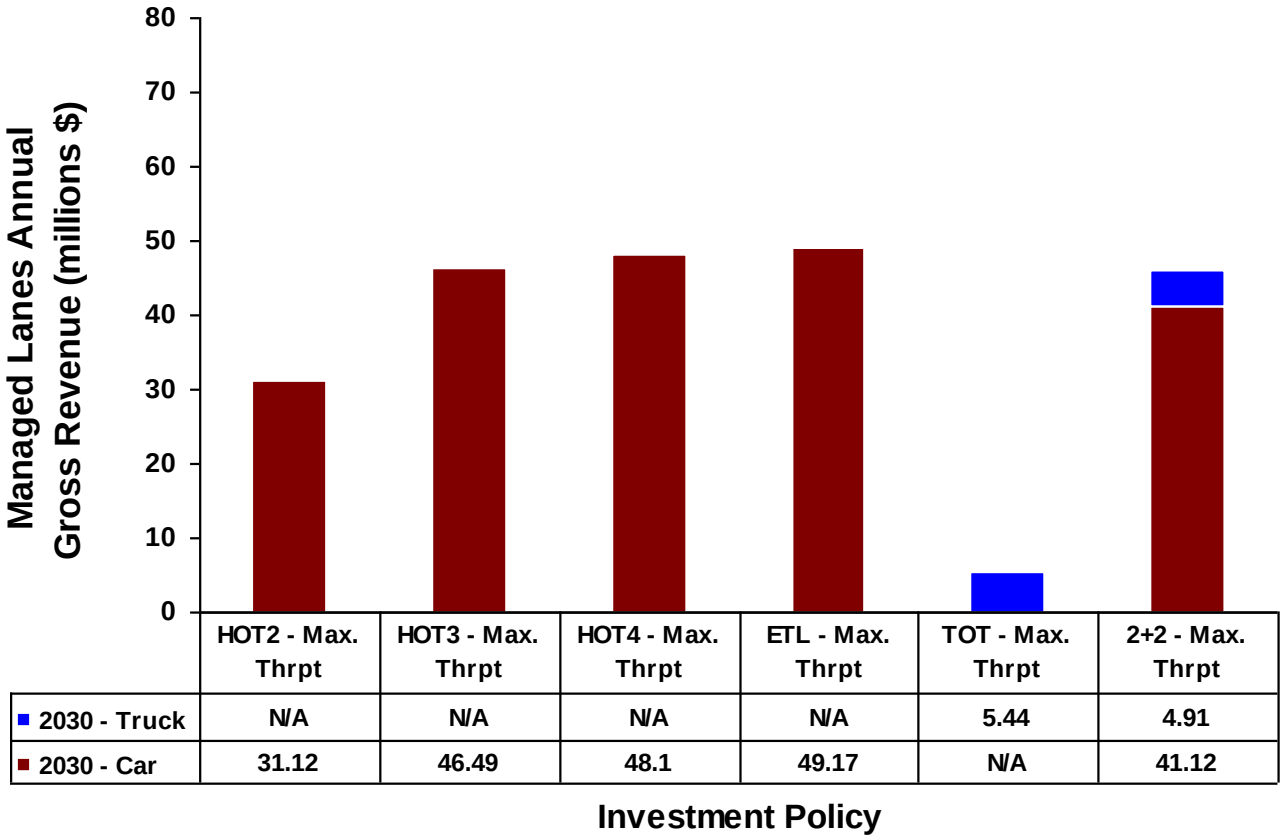
ETL Distance ≈ 24 Miles

TOT Distance ≈ 7 Miles



I-20 West Corridor –Max Throughput Forecast





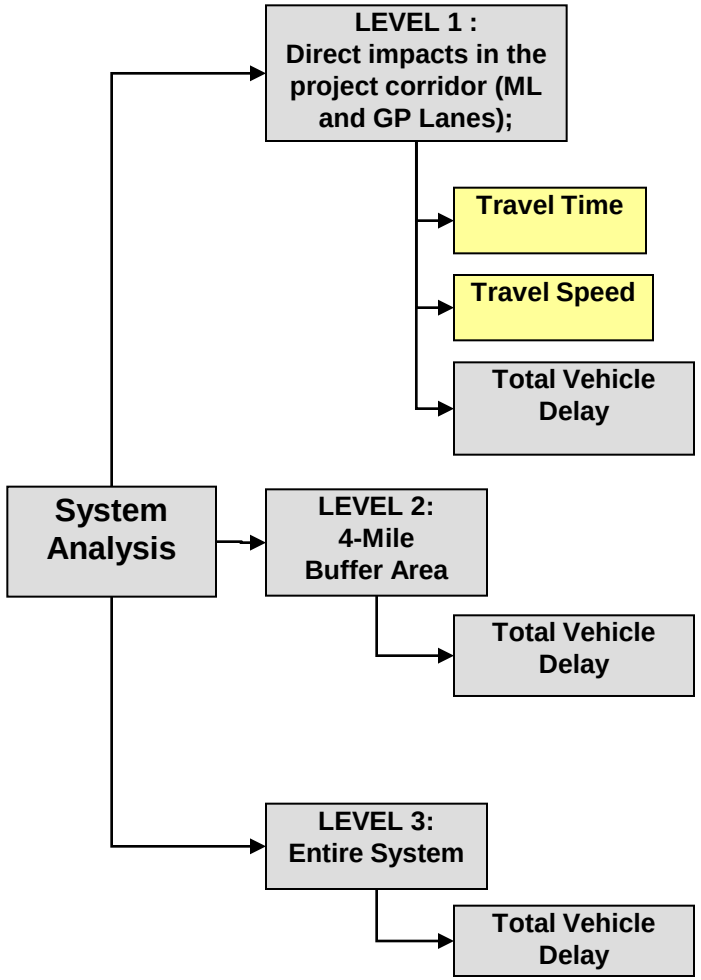
	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	2+2 - Max. Thrpt
2030 - Truck	N/A	N/A	N/A	N/A	5.44	4.91
2030 - Car	31.12	46.49	48.1	49.17	N/A	41.12

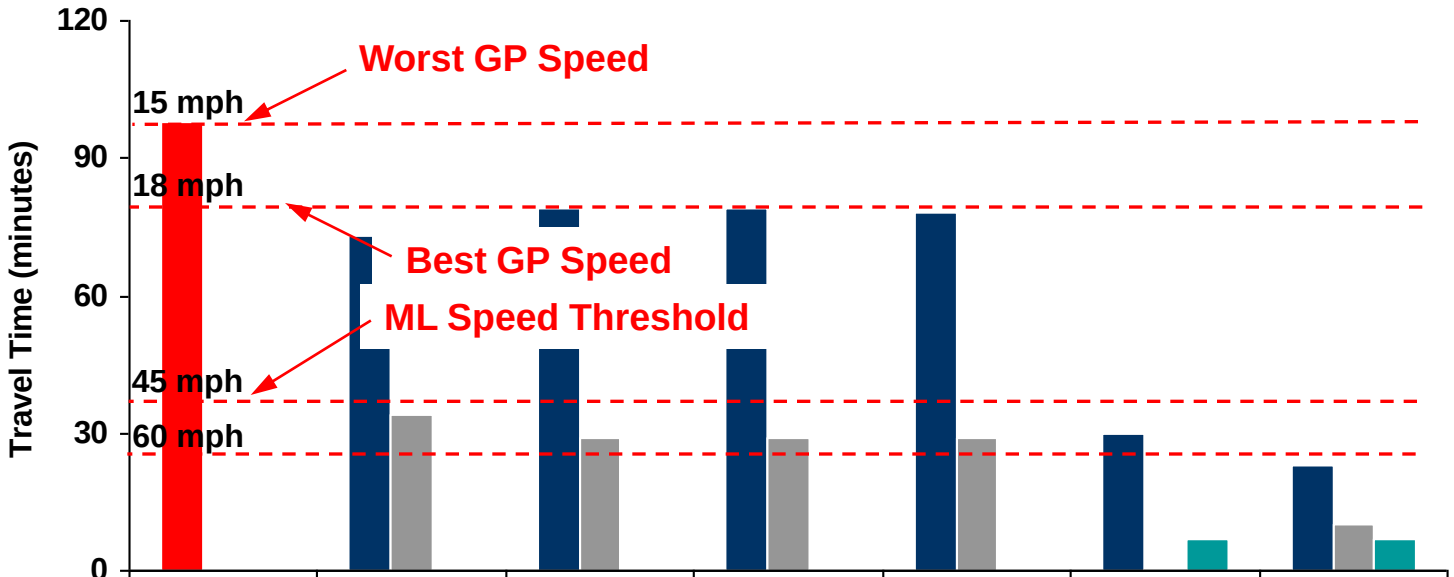
ETL Distance ≈ 24 Miles

TOT Distance ≈ 7 Miles

TOT is provided only for the first segment: I-285 to Thornton Road

I-20 West Corridor
– Transportation User Benefits (2030 Max Revenue)





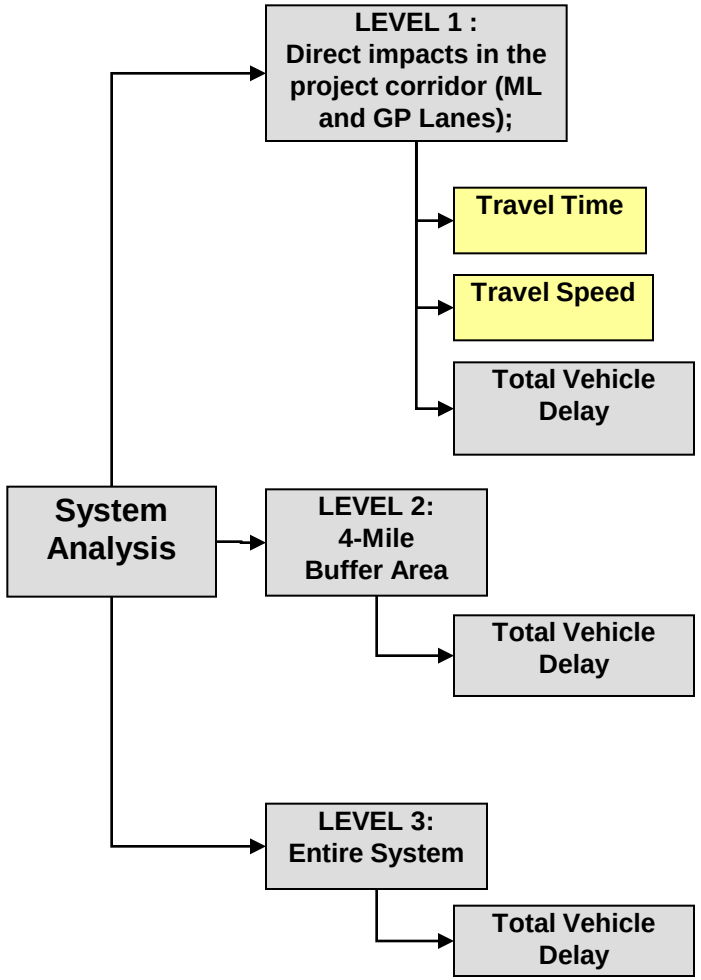
	No Project	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev	TOT - Max. Rev	2+2 - Max. Rev
GP Travel Time	98	73	79	79	78	30	23
ML Travel Time	N/A	34	29	29	29	N/A	10
TL Travel Time	N/A	N/A	N/A	N/A	N/A	7	7

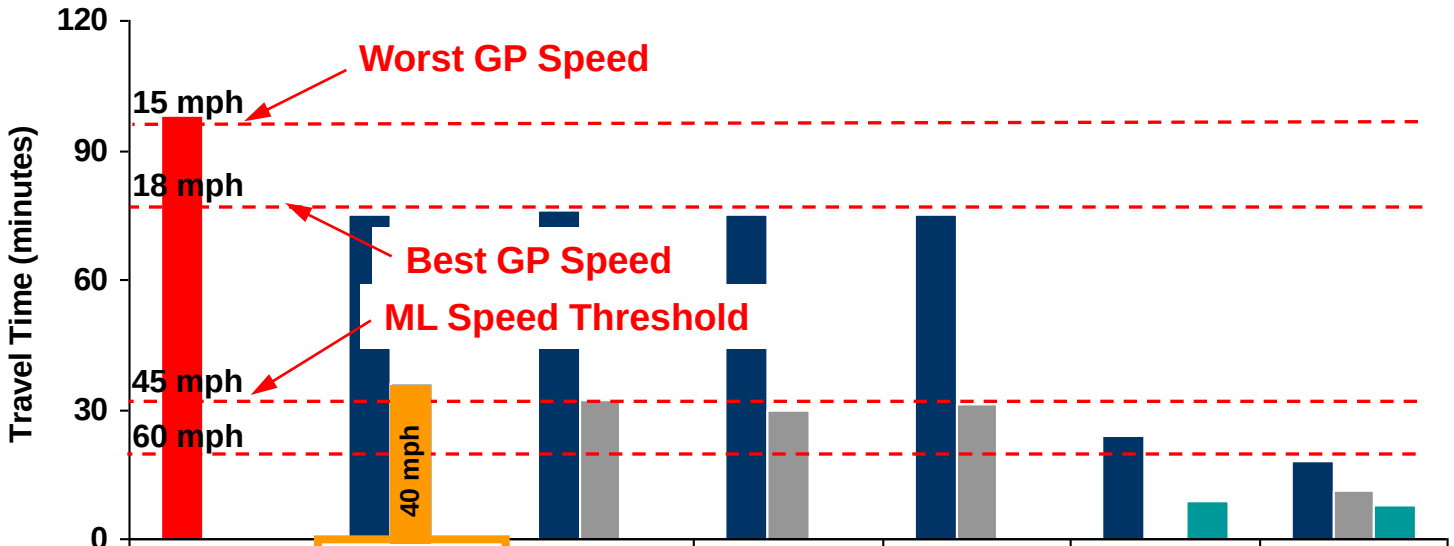
Investment Policy

- **ETL Distance ≈ 24 Miles**
- **TOT Distance ≈ 7 Miles**
- **GP Travel Speed: 14 - 23 mph**
- **ETL Travel Speed: 45 - 50 mph**
- **TOT Travel Speed: 47 - 60 mph**



I-20 West Corridor
– Transportation User Benefits (2030 Max Throughput)



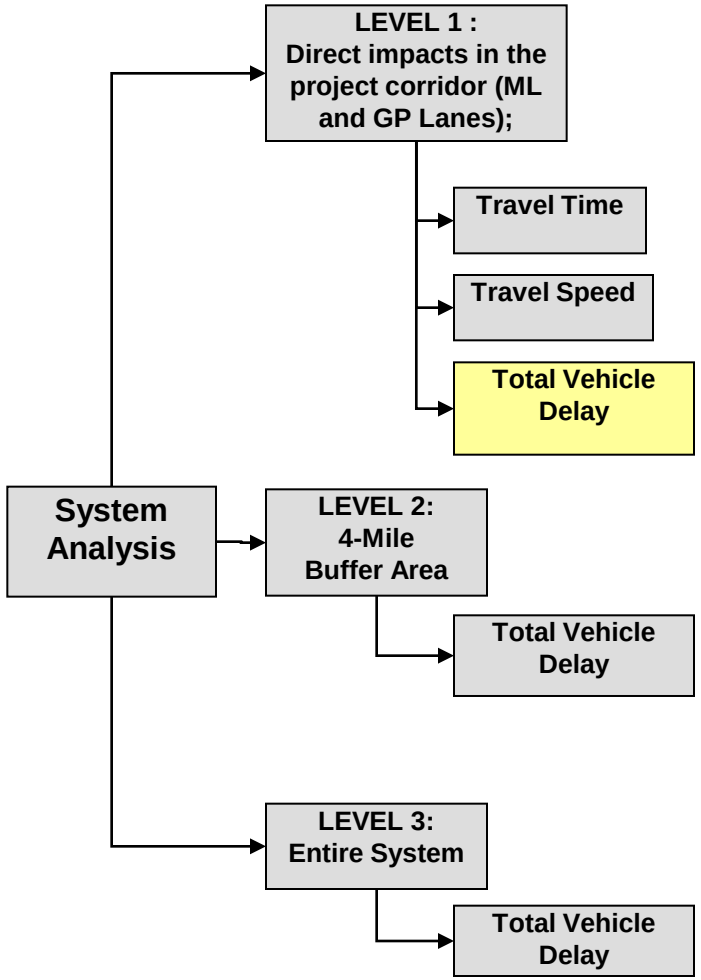


	No Project	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt	TOT - Max. Thrpt	2+2 - Max. Thrpt
GP Travel Time	98	75	76	75	75	24	18
ML Travel Time	N/A	36	32	30	31	N/A	11
TL Travel Time	N/A	N/A	N/A	N/A	N/A	9	8

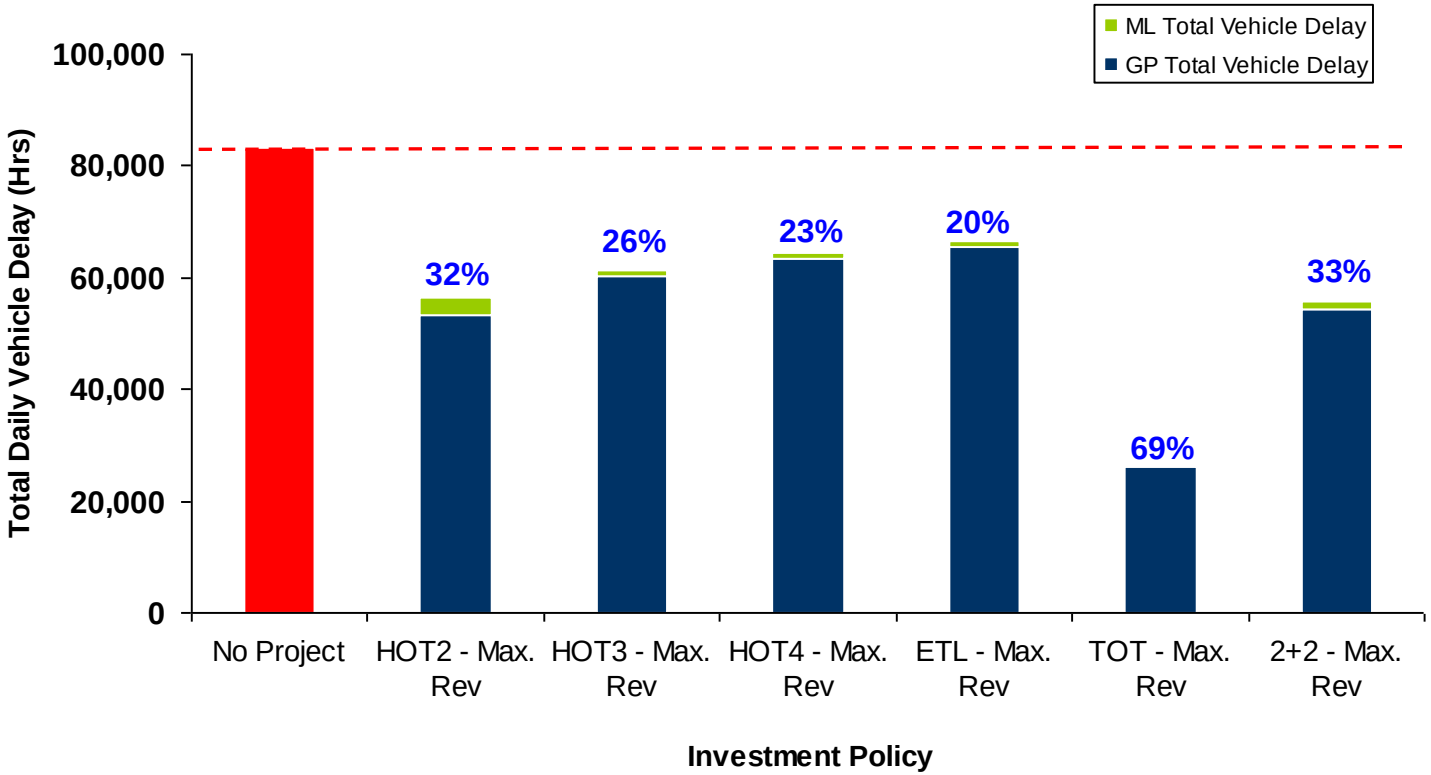
Investment Policy

- **ETL Distance ≈ 24 Miles**
- **TOT Distance ≈ 7 Miles**
- **GP Travel Speed: 14 - 23 mph**
- **ETL Travel Speed: 45 - 50 mph**
- **TOT Travel Speed: 47 - 60 mph**

I-20 West Corridor
– Transportation User Benefits (2030 Max Revenue)



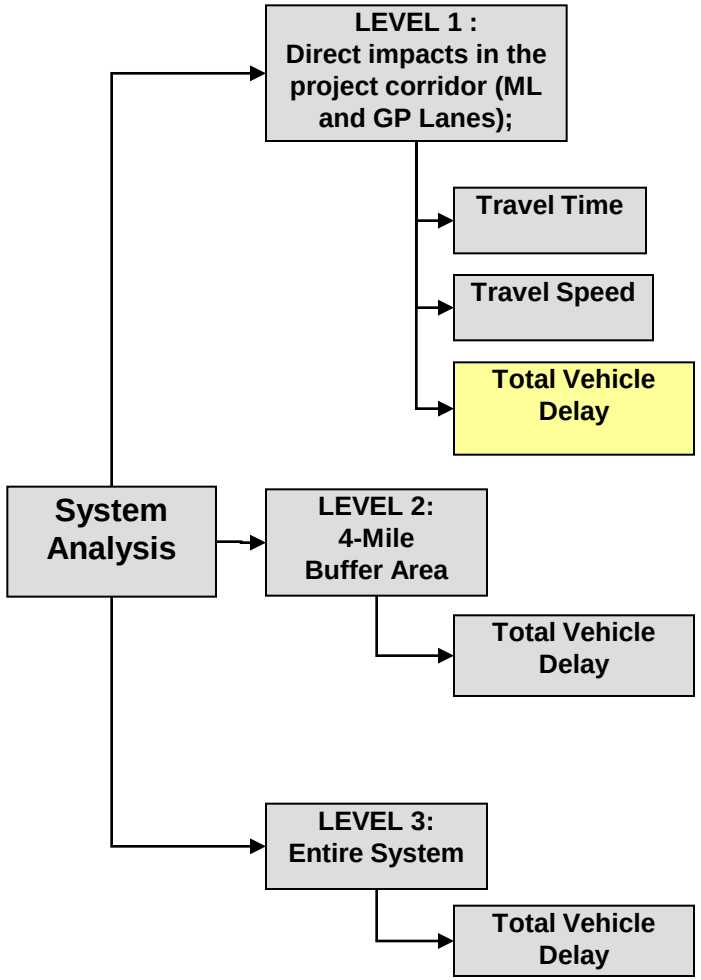
Decrease in Total Daily Vehicle Delay along this corridor relative to the "No Project" scenario



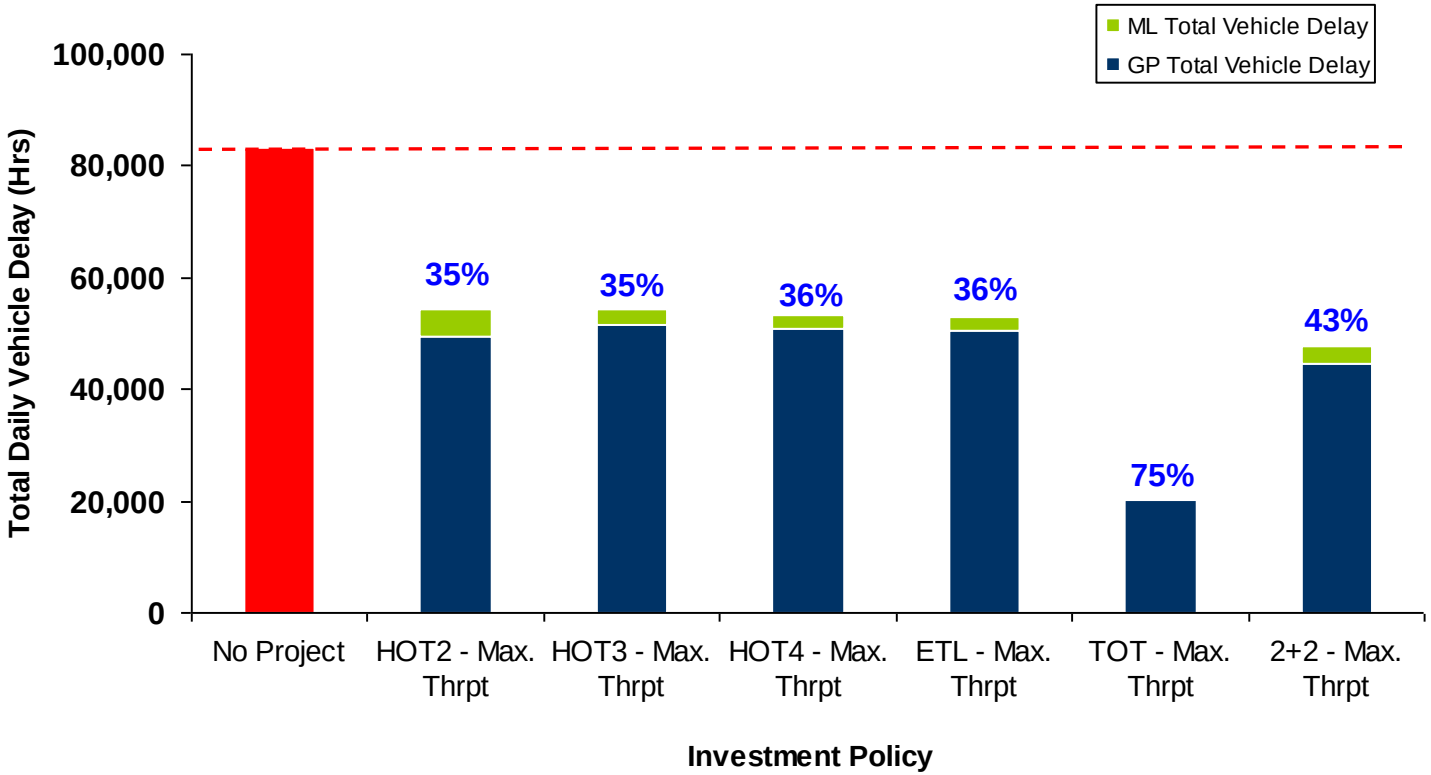
ETL Distance ≈ 24 Miles

TOT Distance ≈ 7 Miles

I-20 West Corridor
– Transportation User Benefits (2030 Max Throughput)



Decrease in Total Daily Vehicle Delay along this corridor relative to the "No Project" scenario

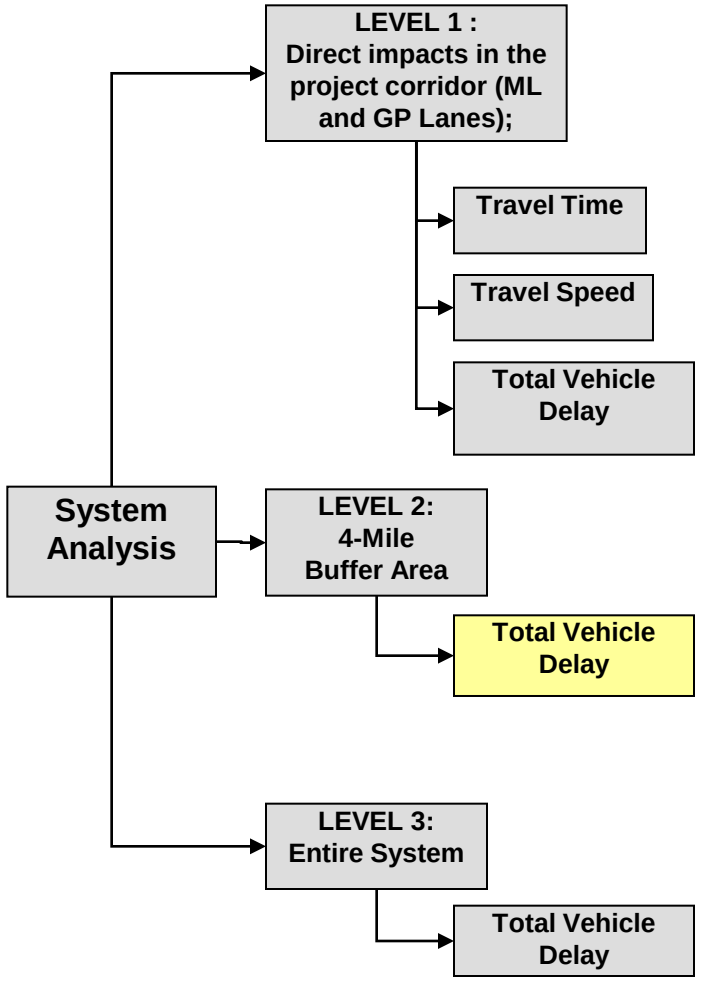


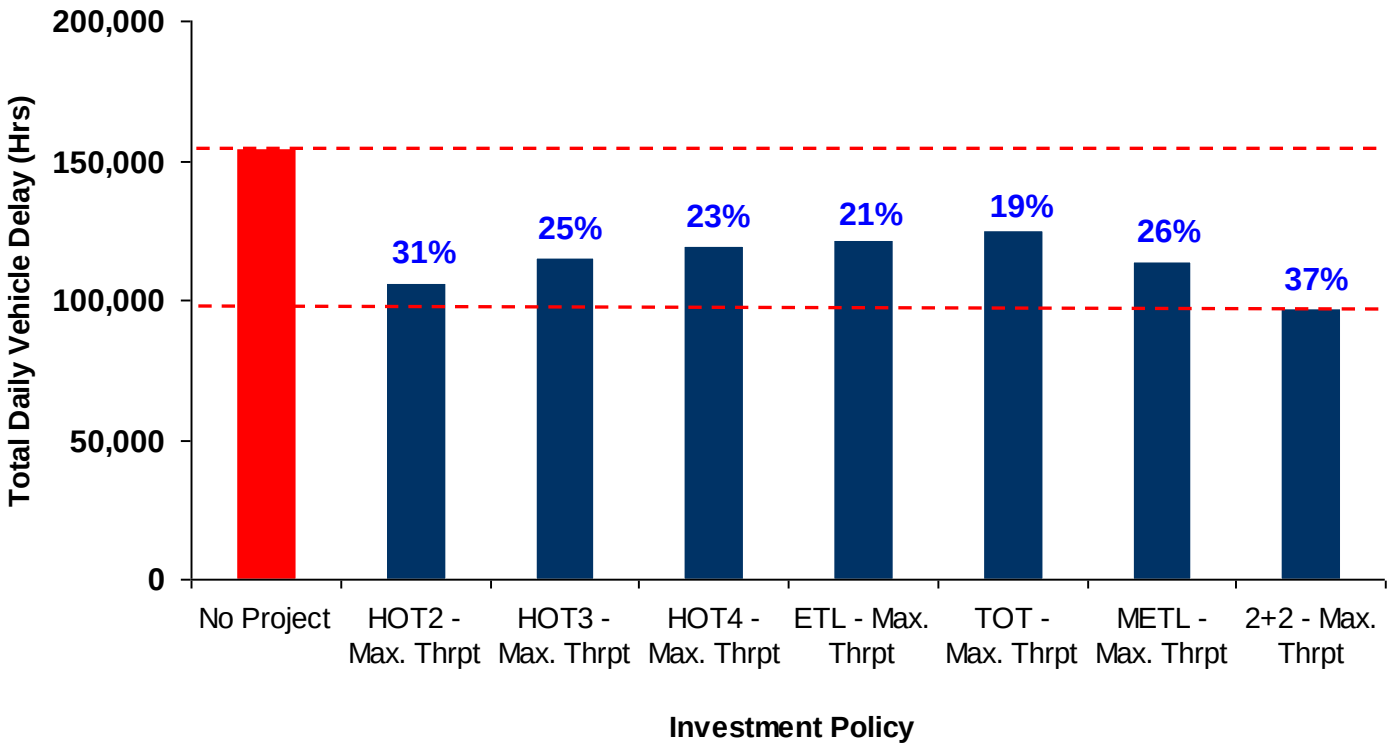
ETL Distance ≈ 24 Miles

TOT Distance ≈ 7 Miles



I-20 West Corridor
– Transportation User Benefits (2030 Max Throughput)





ETL Distance ≈ 24 Miles

TOT Distance ≈ 7 Miles

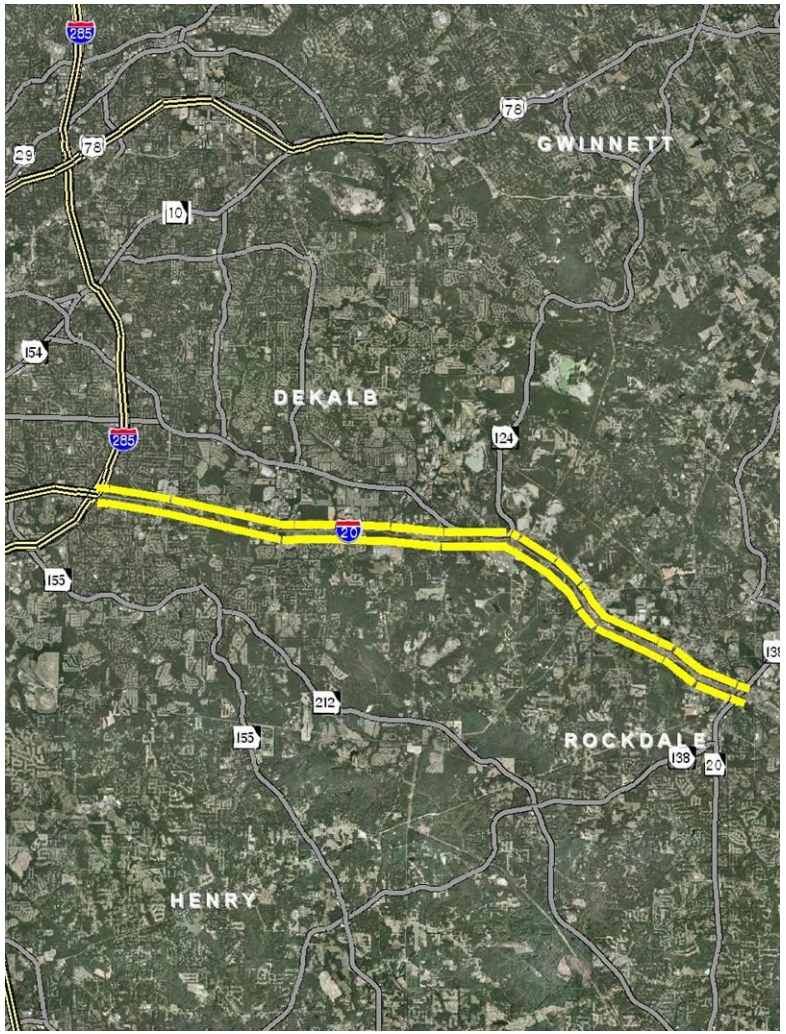
Corridors without Truck Only Lane Recommendations

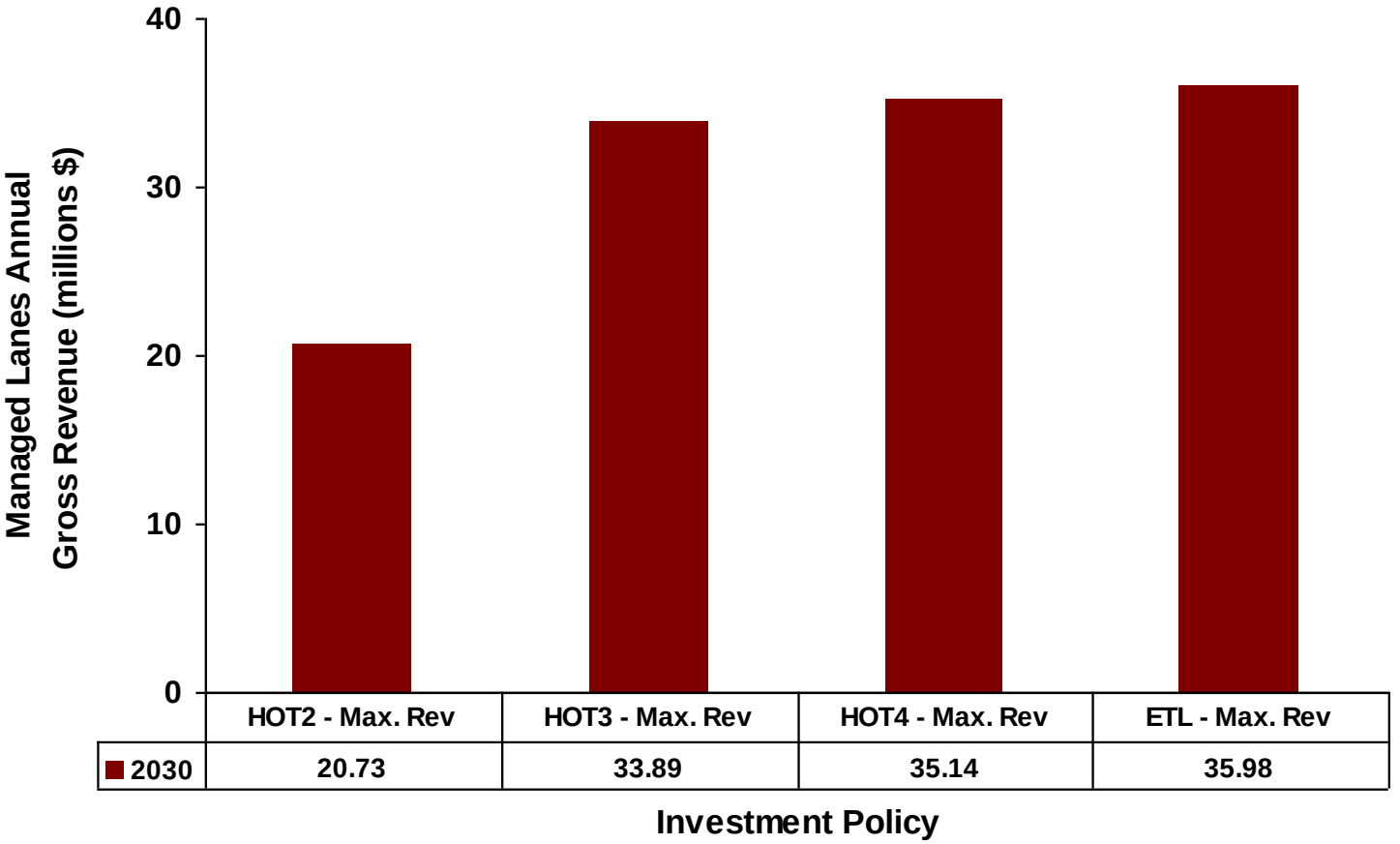
- Investment Policy Scenarios

Lane Configuration	Investment Policy Scenarios	I-20 East Corridor	SR 400	I-575	Interstates Inside of I-285
2-Lane Each Direction	ETL	√-Results Review	√-Results Review	√-Results Review	√-Results Review
	TOT_V	N/A	N/A	N/A	N/A
	HOT(HOT2+, HOT3+, HOT 4+)	√-Results Review	√-Results Review	√-Results Review	√-Results Review
3-Lane Each Direction	Mixed ETL	N/A	N/A	N/A	N/A
4-Lane Each Direction	ETL & TOT_V	N/A	N/A	N/A	N/A



I-20 East Segment – Max Revenue Forecast



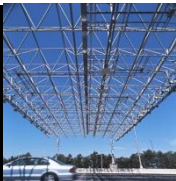


Distance ≈ 17 Miles

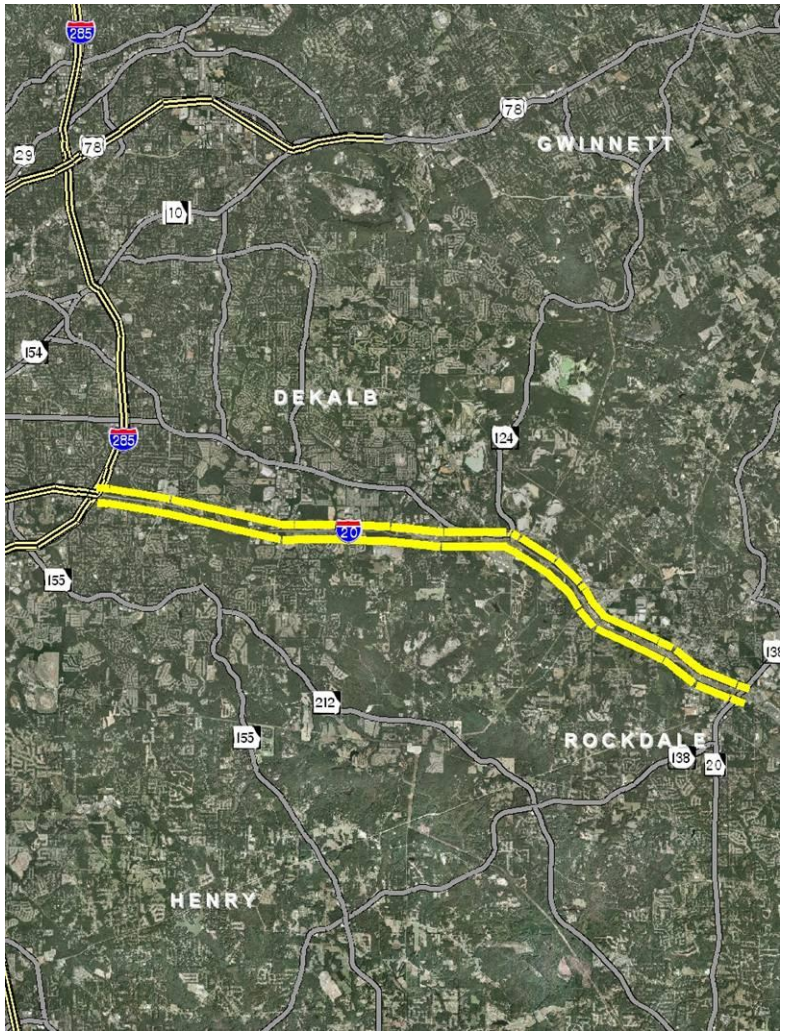
*** Toll Rates established with ETL policy were used for all HOT policies.**

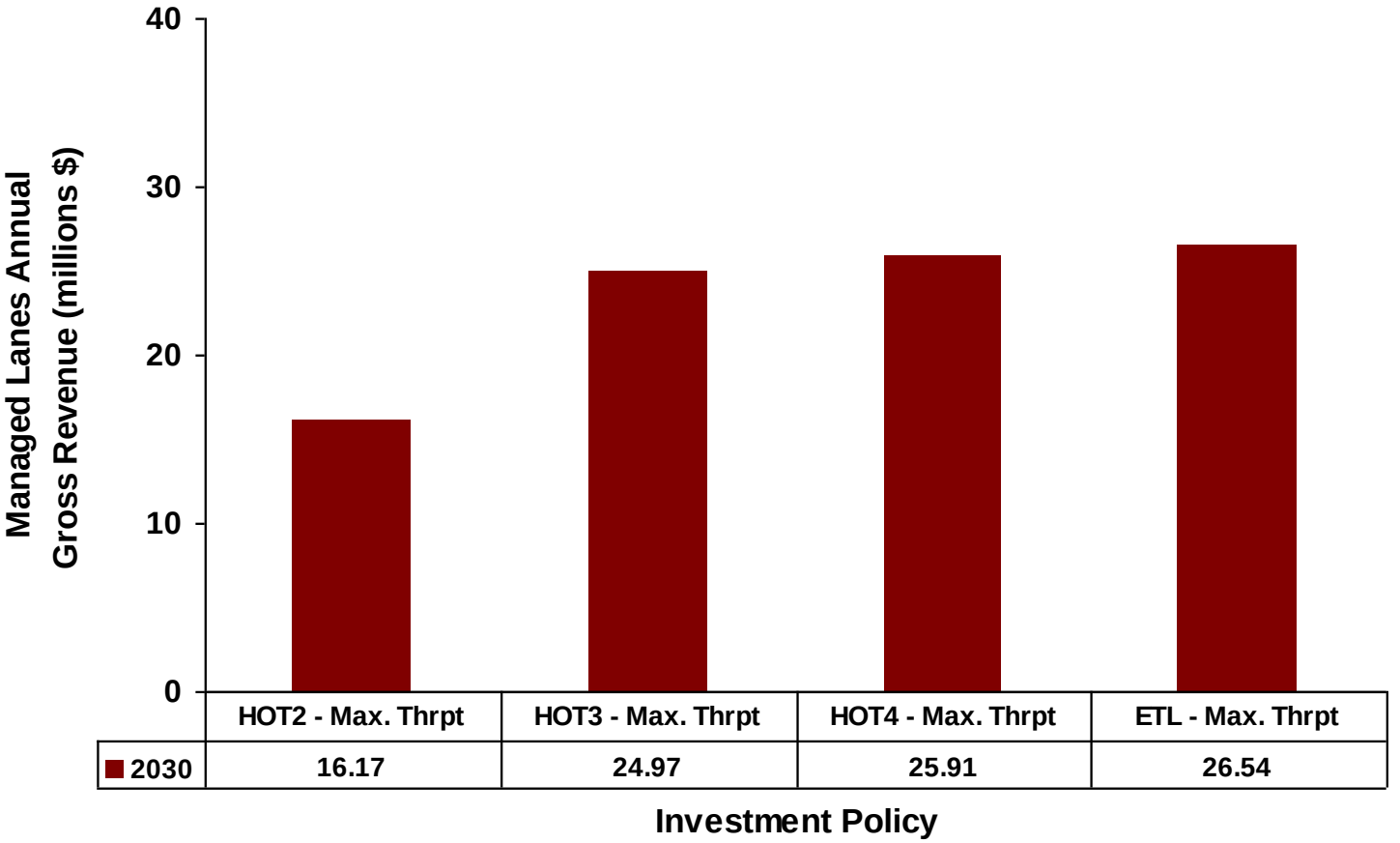
HNTB





I-20 East Segment – Max Throughput Forecast



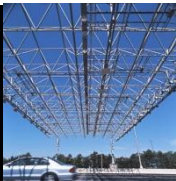


Distance ≈ 17 Miles

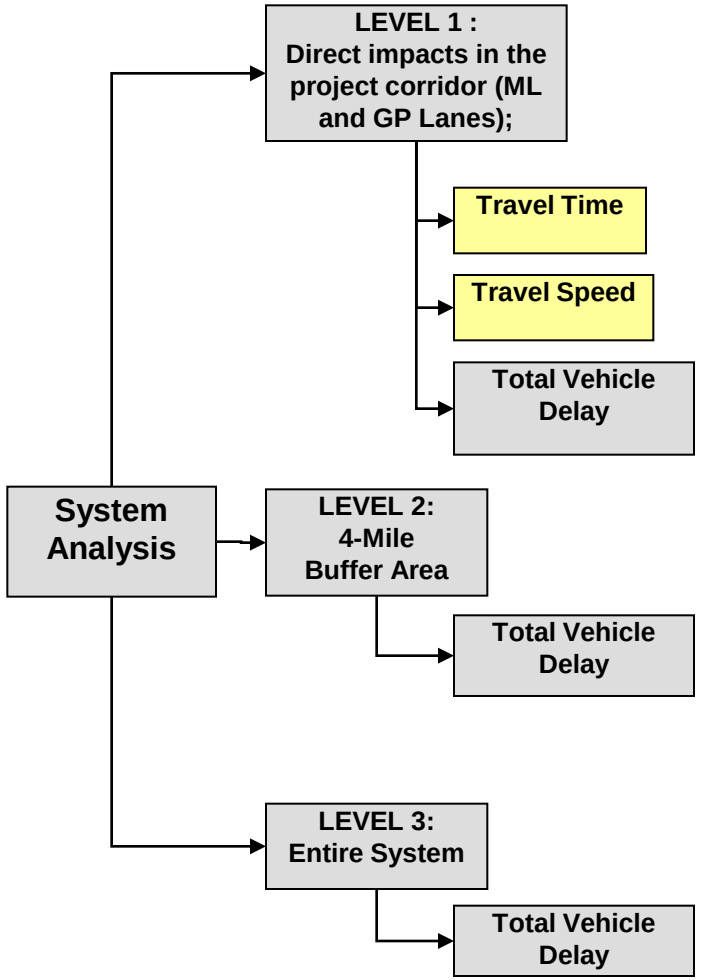
*** Toll Rates established with ETL policy were used for all HOT policies.**

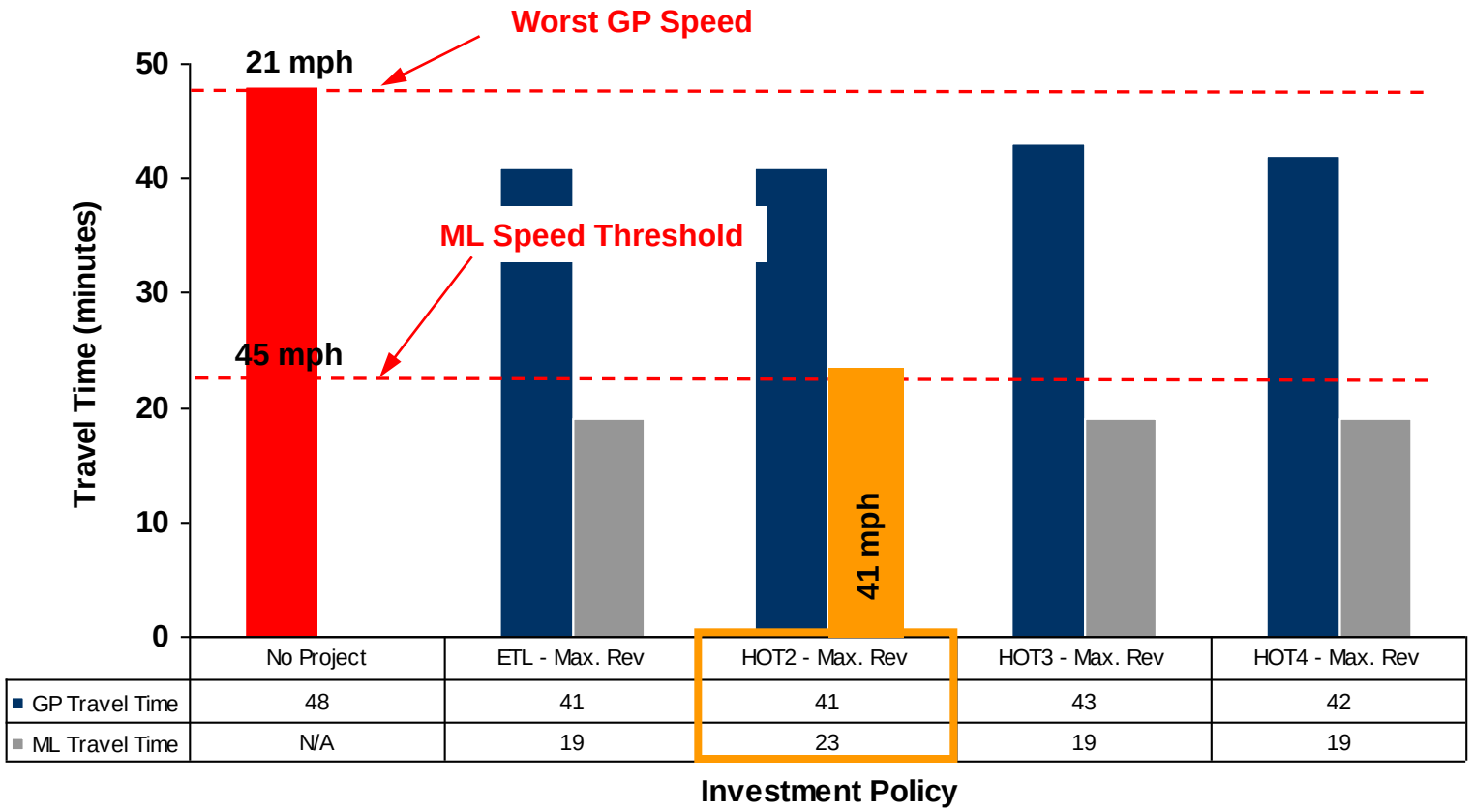
HNTB





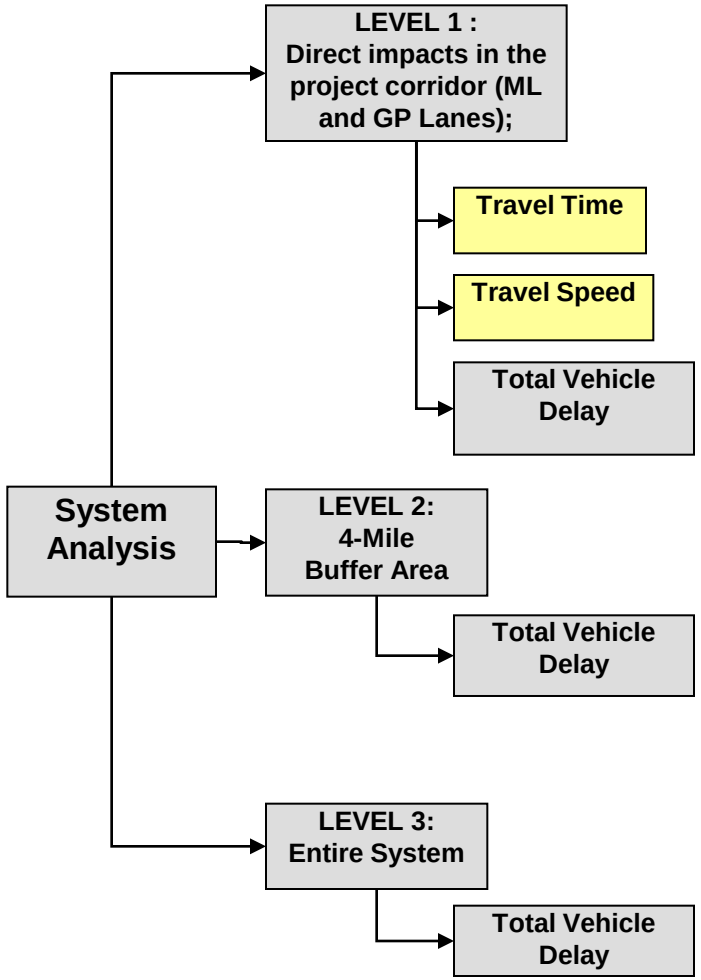
I-20 East Segment
– Transportation User Benefits (2030 Max Revenue)

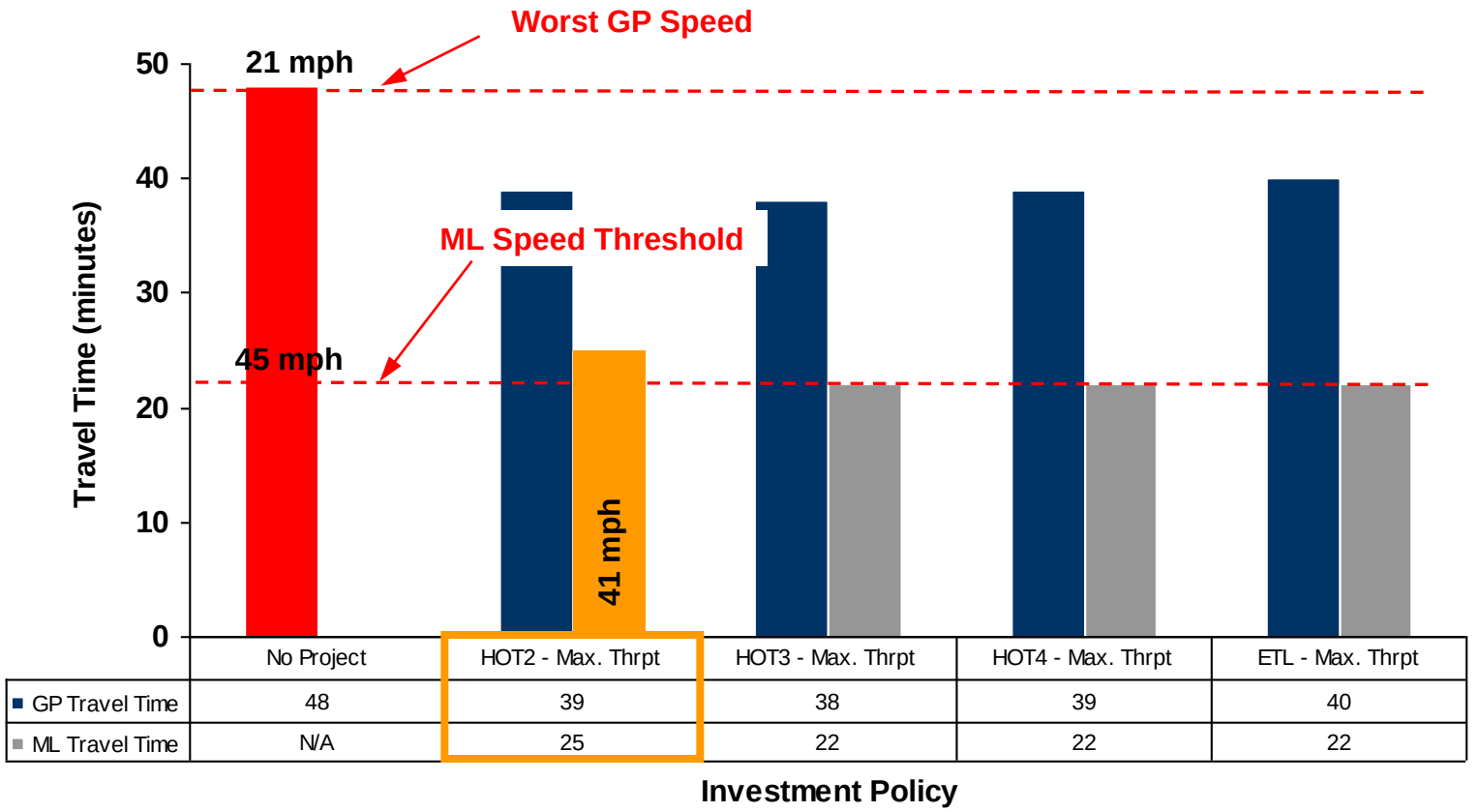




– Distance ≈ 17 Miles
– GP Travel Speed (No Project): 20 mph
– GP Travel Speed: 20 - 26 mph
– ML Travel Speed: 45 - 54 mph

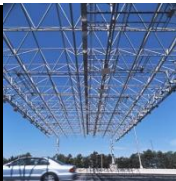
I-20 East Segment
– Transportation User Benefits (2030 Max Throughput)



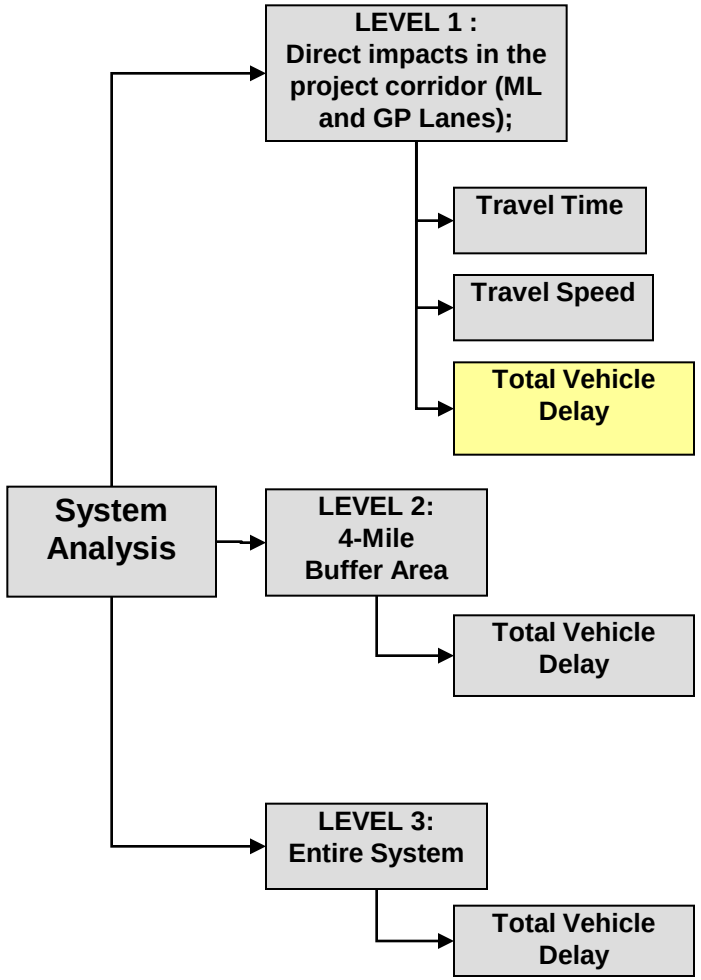


– Distance ≈ 17 Miles
– GP Travel Speed (No Project): 21 mph
– GP Travel Speed: 20 - 26 mph
– ML Travel Speed: 45 - 54 mph

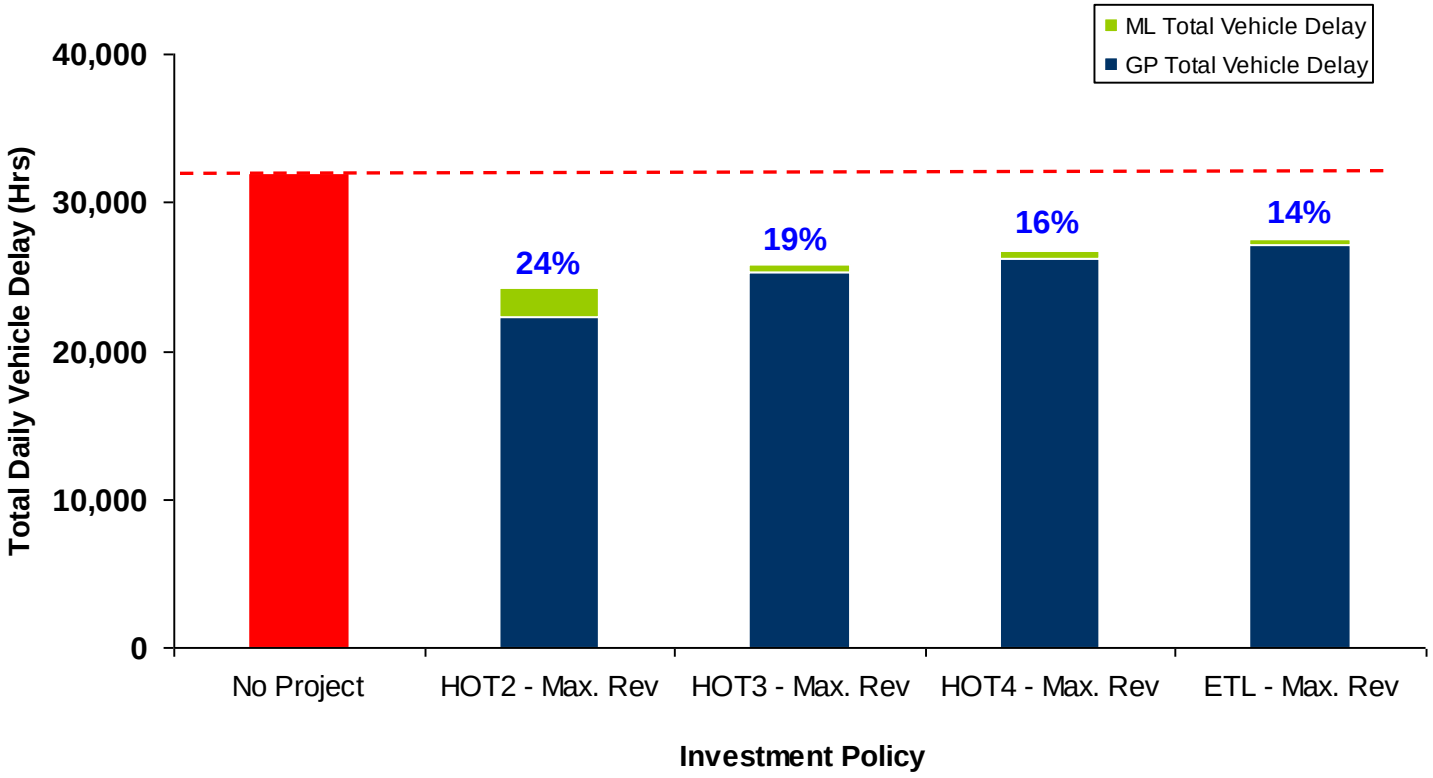




I-20 East Corridor
– Transportation User Benefits (2030 Max Revenue)

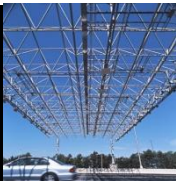


Decrease in Total Daily Vehicle Delay along this corridor relative to the "No Project" scenario

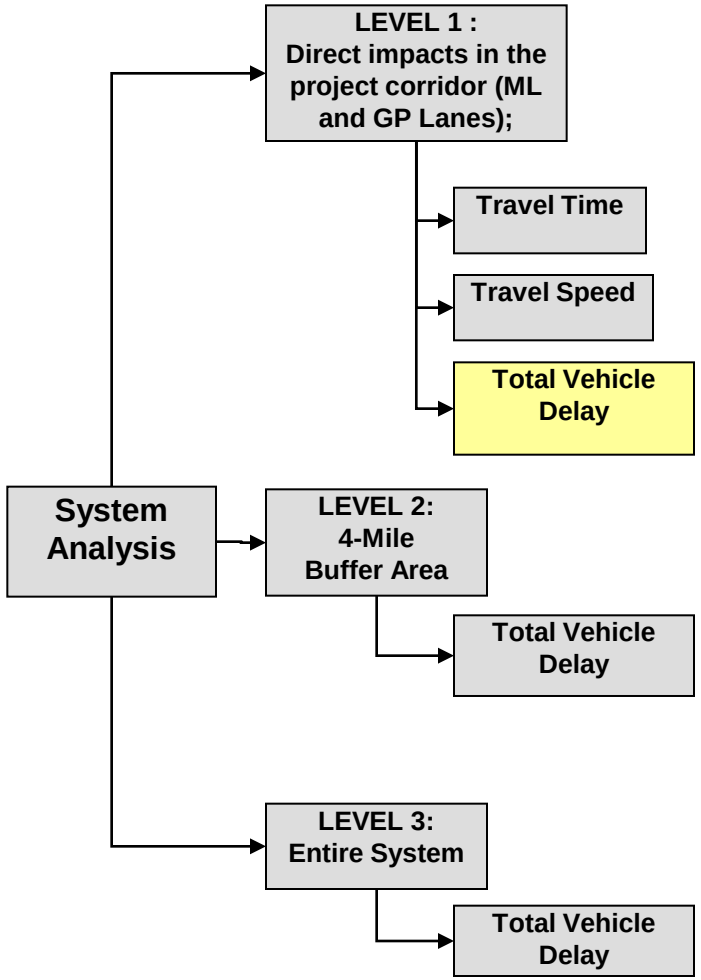


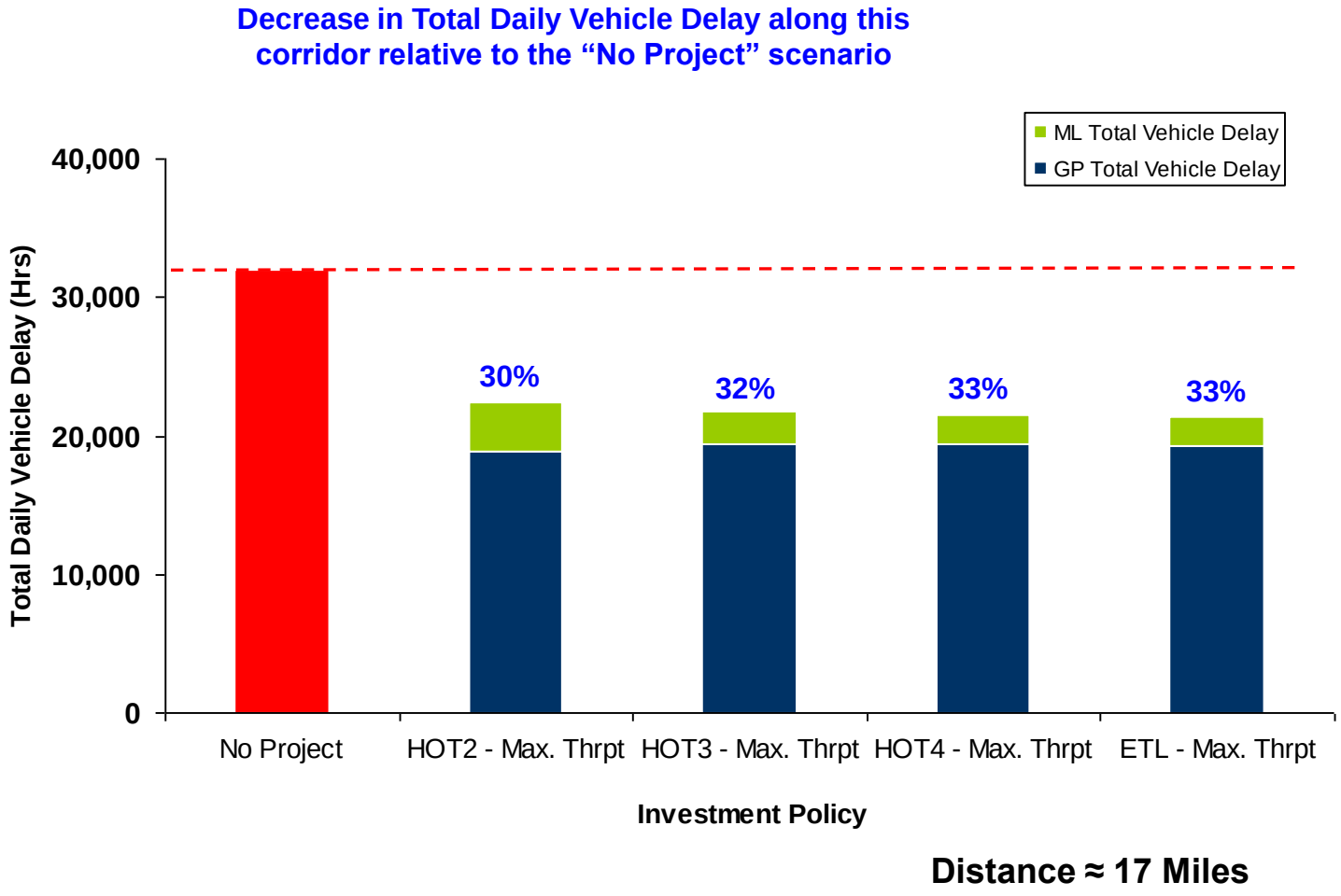
Distance ≈ 17 Miles



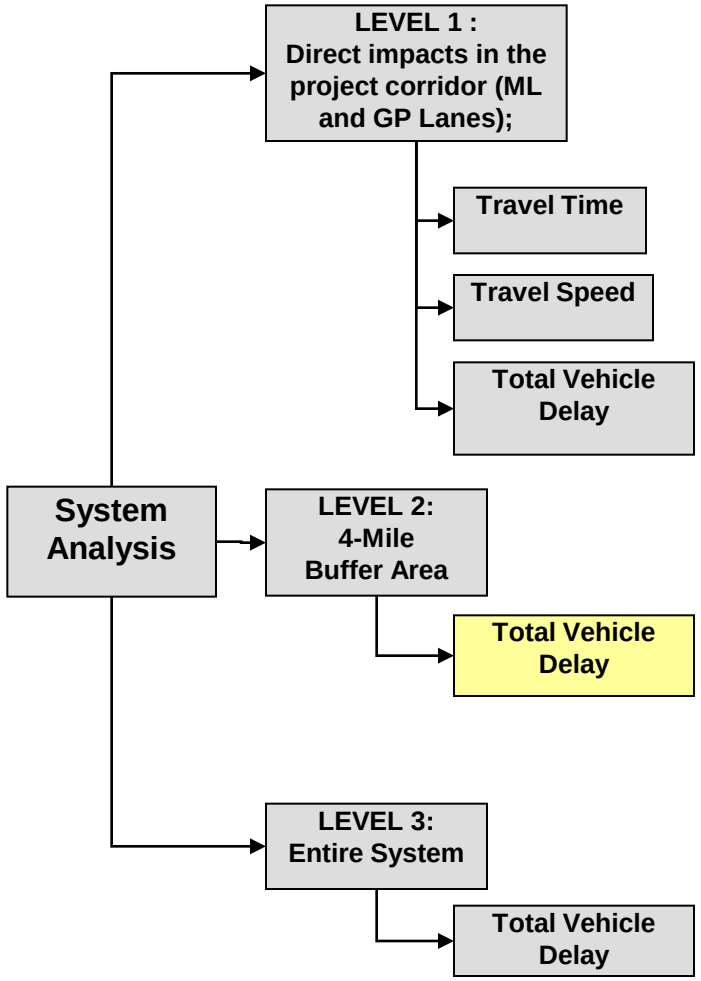


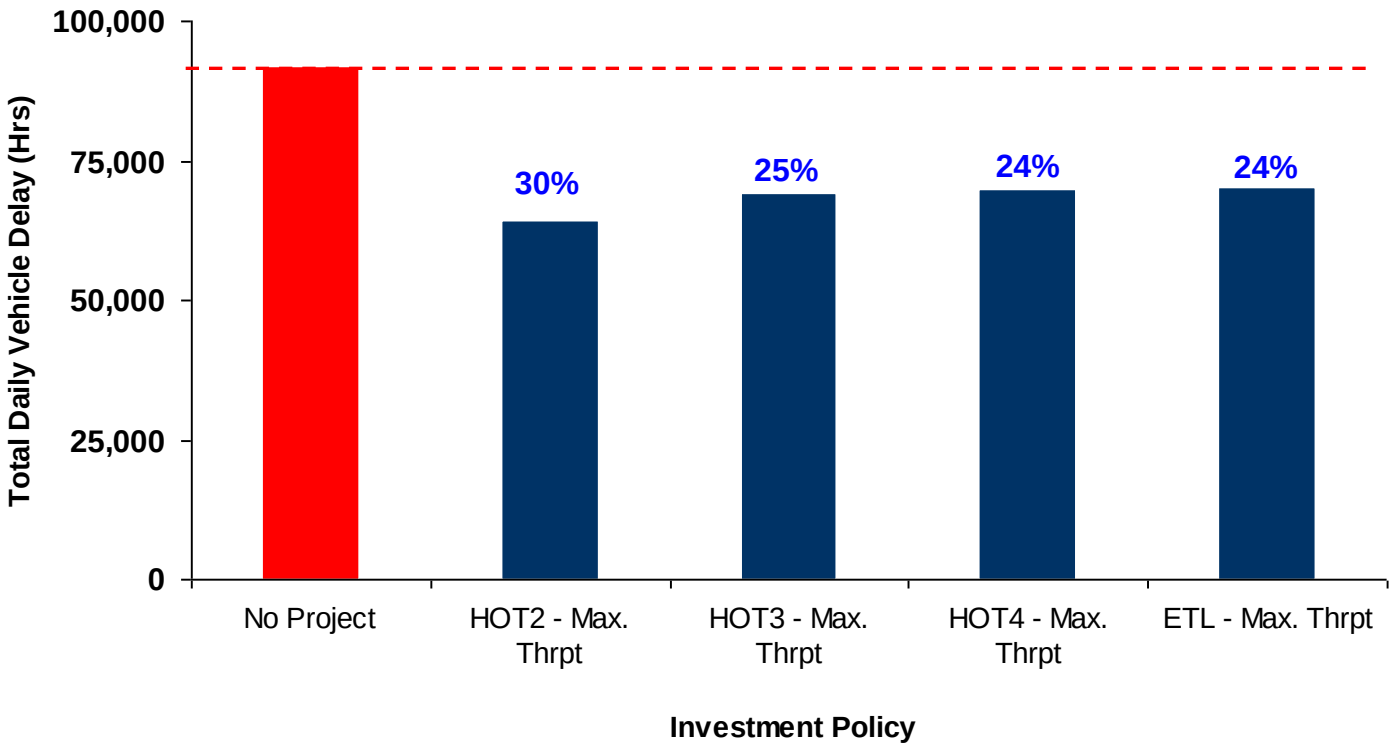
I-20 East Corridor
– Transportation User Benefits (2030 Max Throughput)





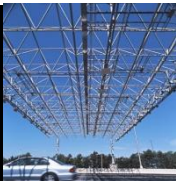
I-20 East Corridor
– Transportation User Benefits (2030 Max Throughput)



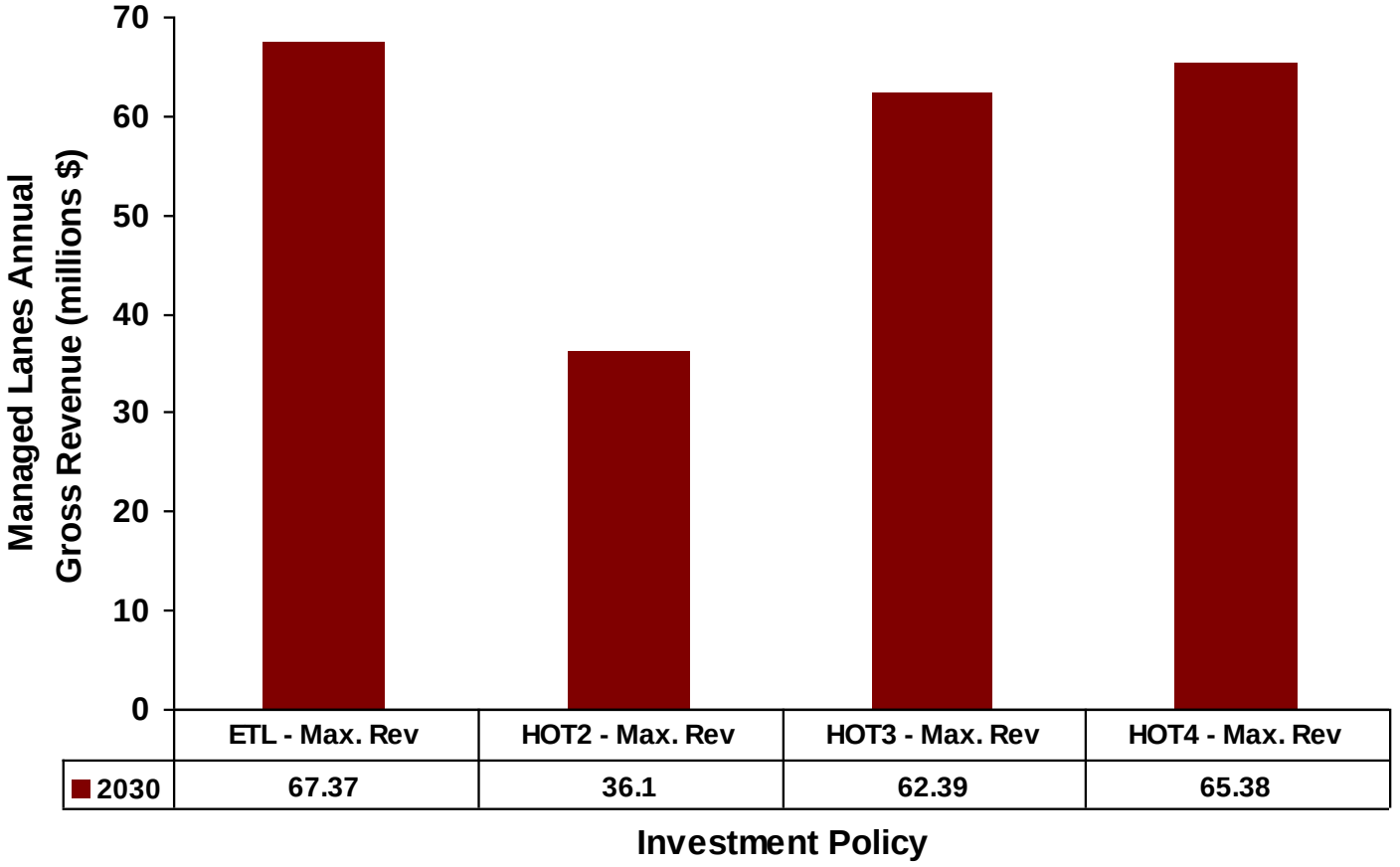


Distance ≈ 17 Miles





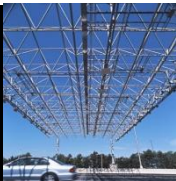
SR 400 Corridor – Max Revenue Forecast



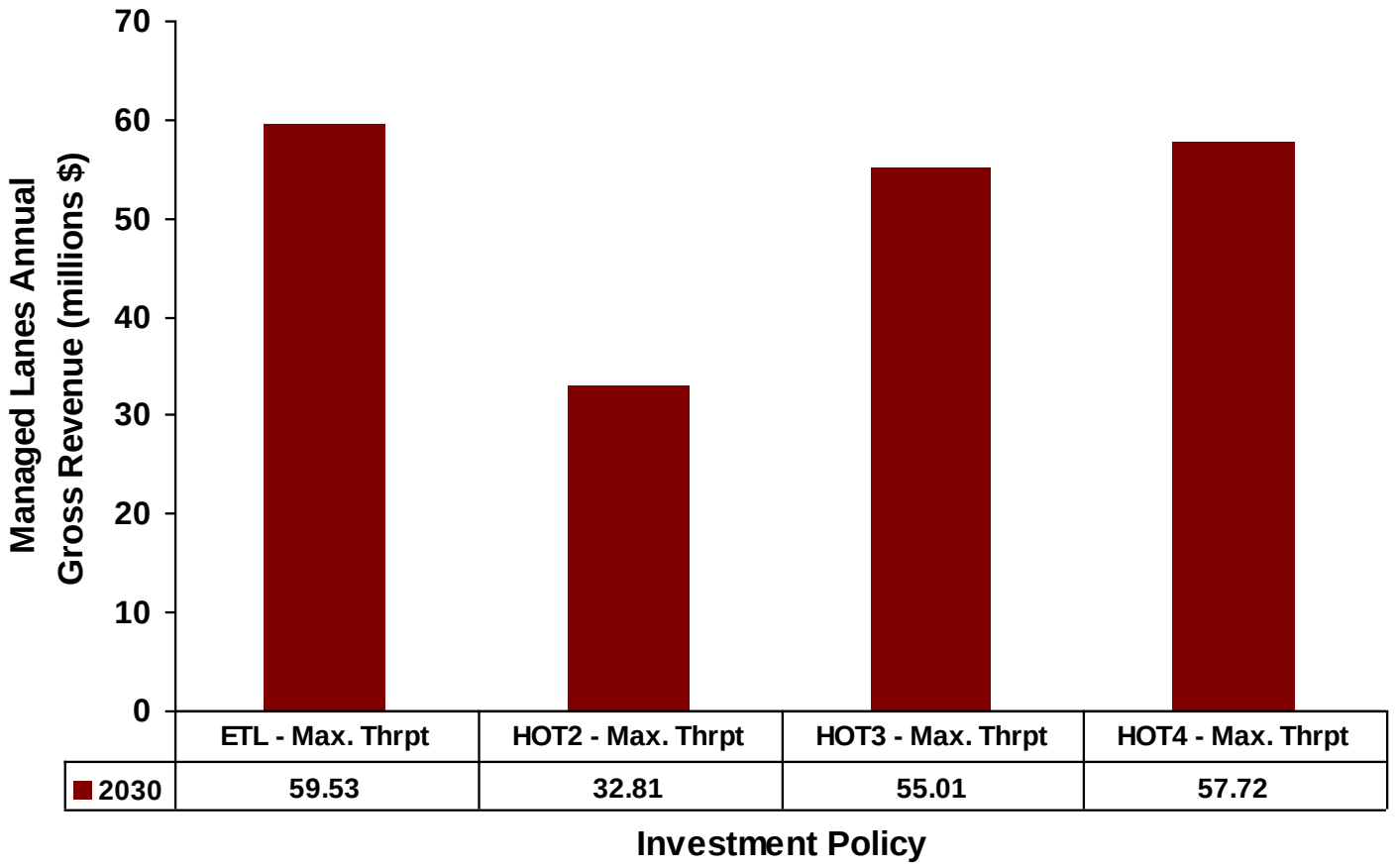
Distance ≈ 33 Miles

*** Toll Rates established with ETL policy were used for all HOT policies.**

HNTB



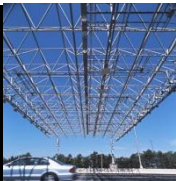
SR 400 Corridor – Max Throughput Forecast



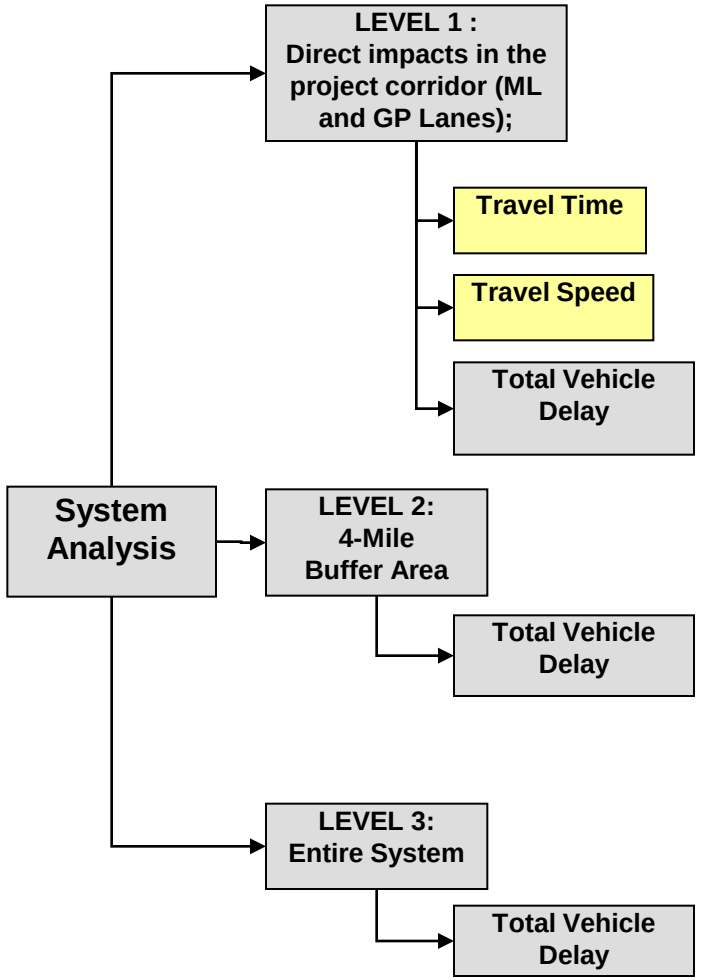
Distance ≈ 33 Miles

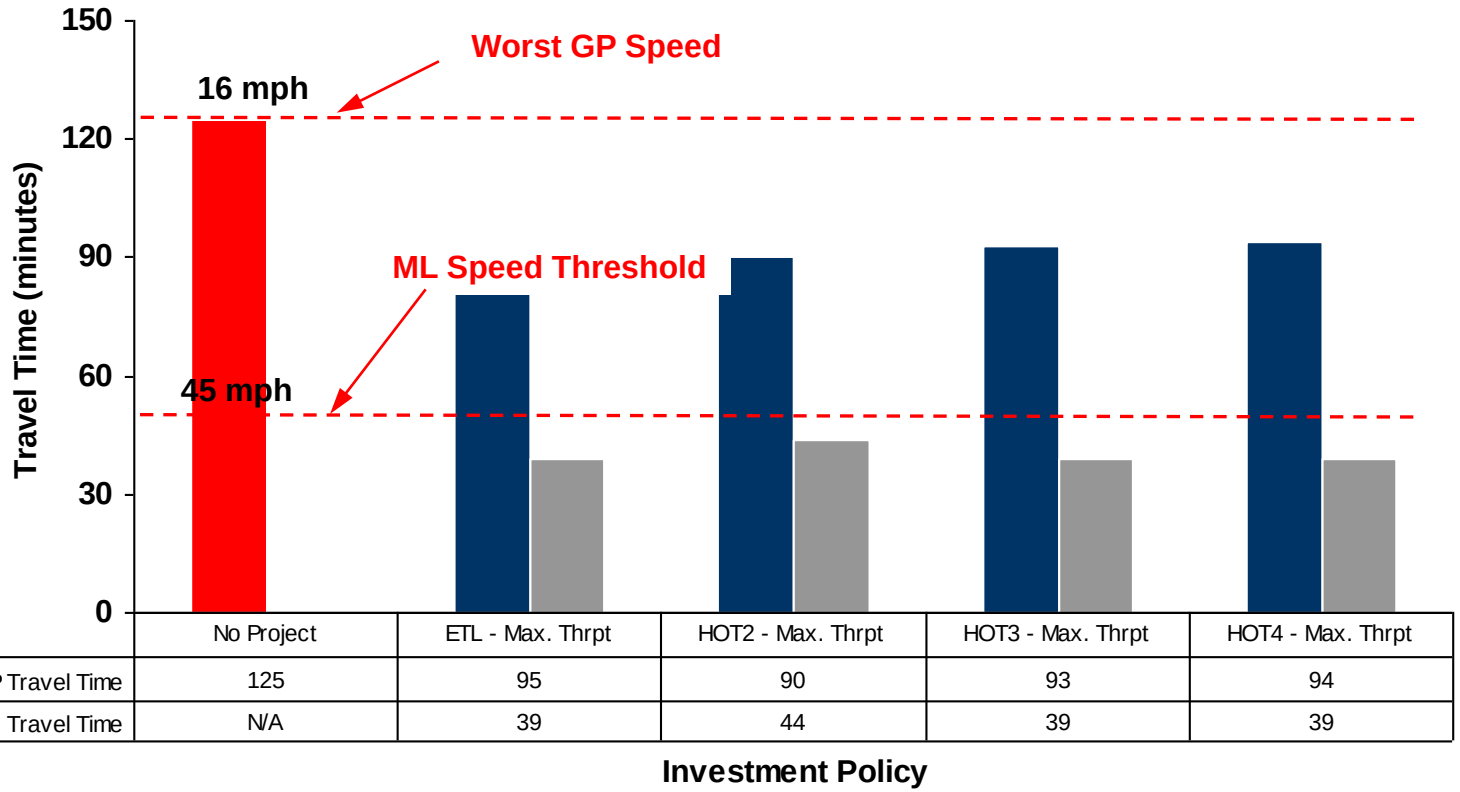
*** Toll Rates established with ETL policy were used for all HOT policies.**

HNTB



SR 400 Corridor – Transportation User Benefits (2030 Max Throughput)

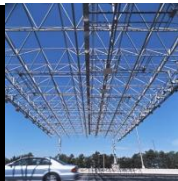




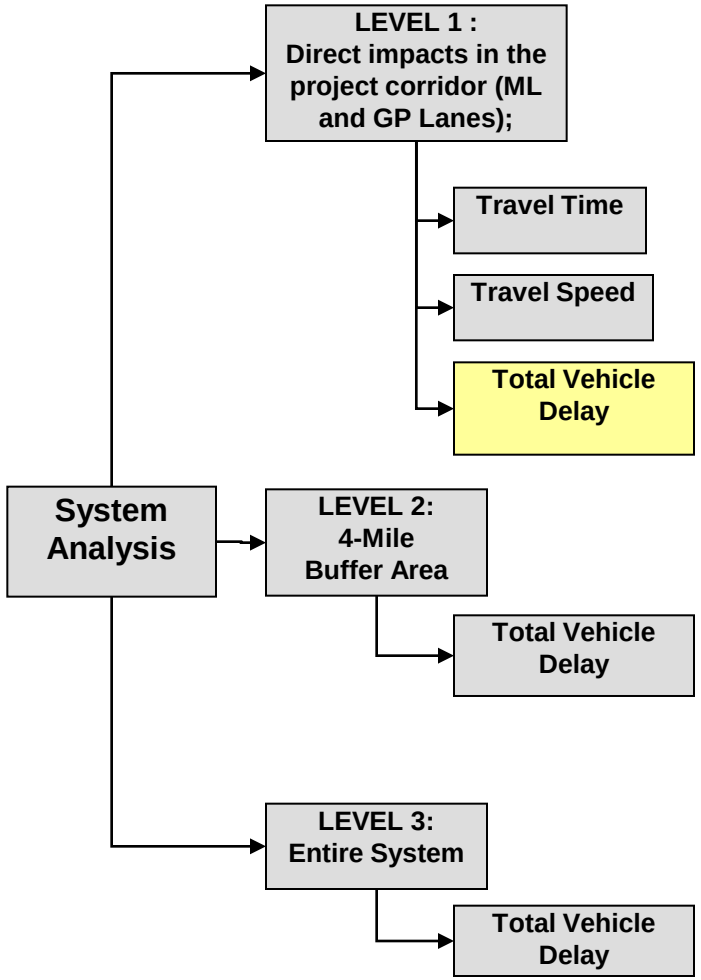
	No Project	ETL - Max. Thrpt	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt
GP Travel Time	125	95	90	93	94
ML Travel Time	N/A	39	44	39	39

- Distance ≈ 33 Miles
- GP Travel Speed (Envision 6): 19 mph
- GP Travel Speed: 15 - 22 mph
- ML Travel Speed: 45 - 54 mph

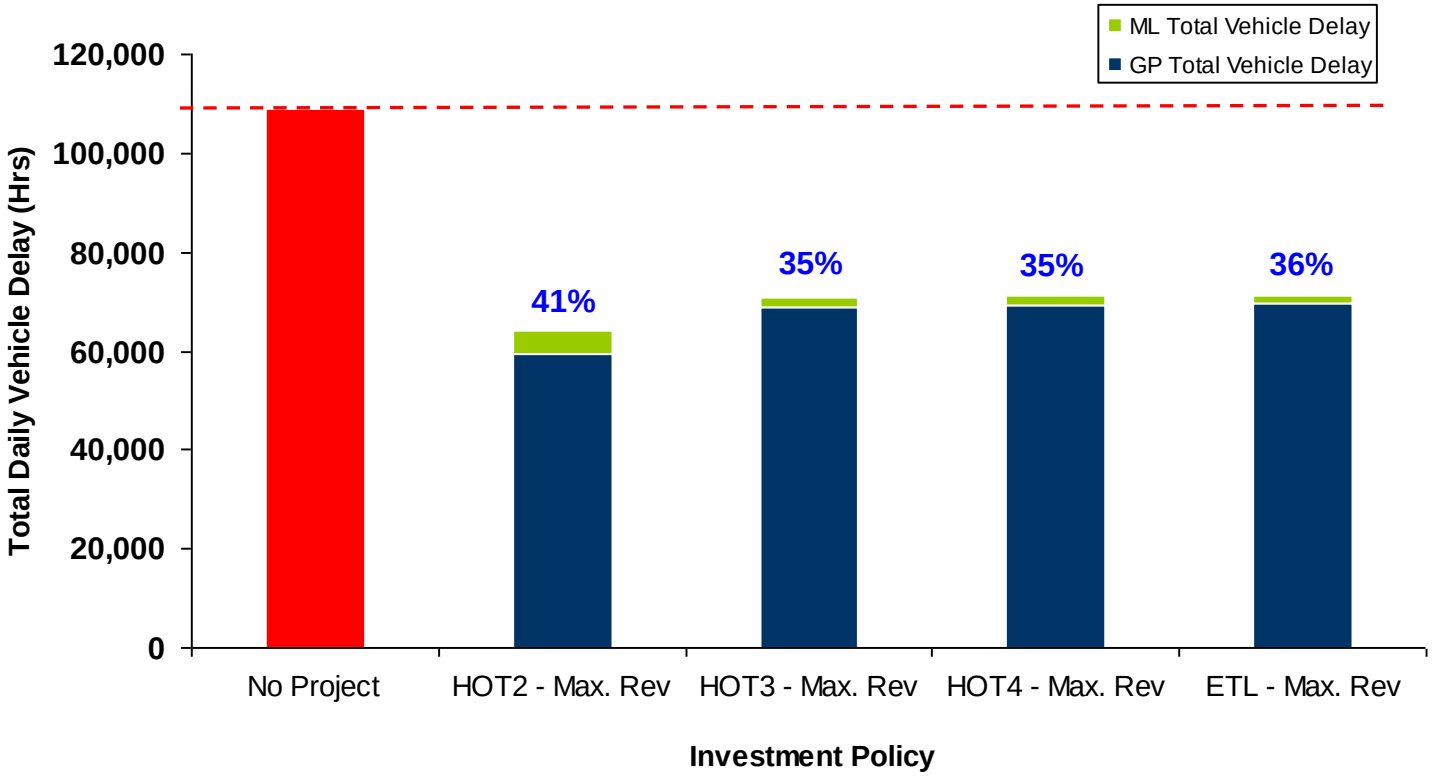




SR 400 Corridor – Transportation User Benefits (2030 Max Revenue)



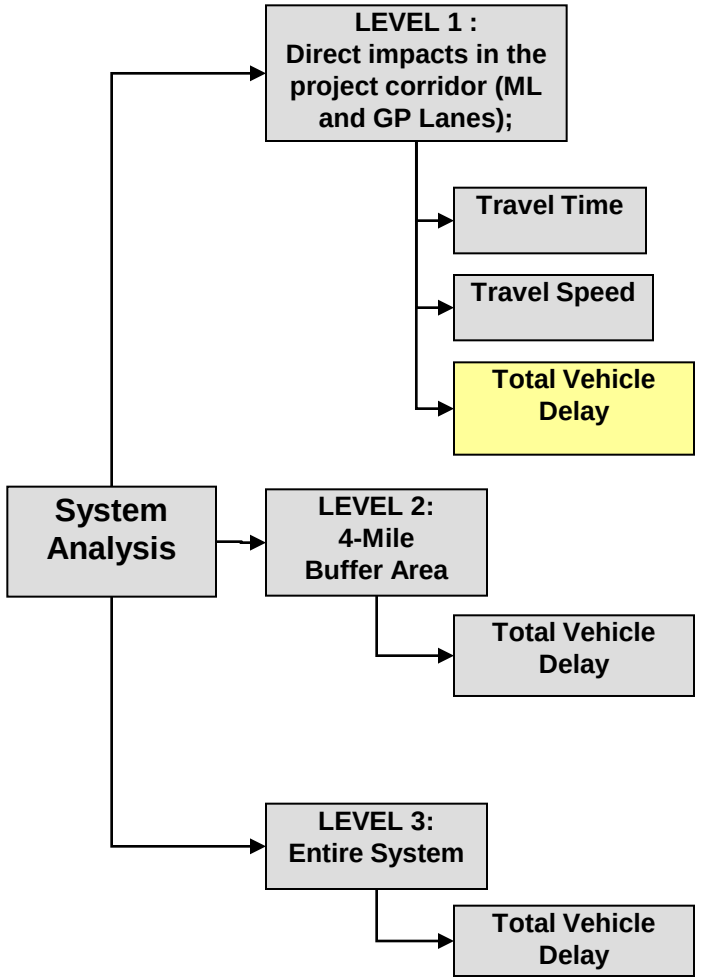
Decrease in Total Daily Vehicle Delay along this corridor relative to the "No Project" scenario



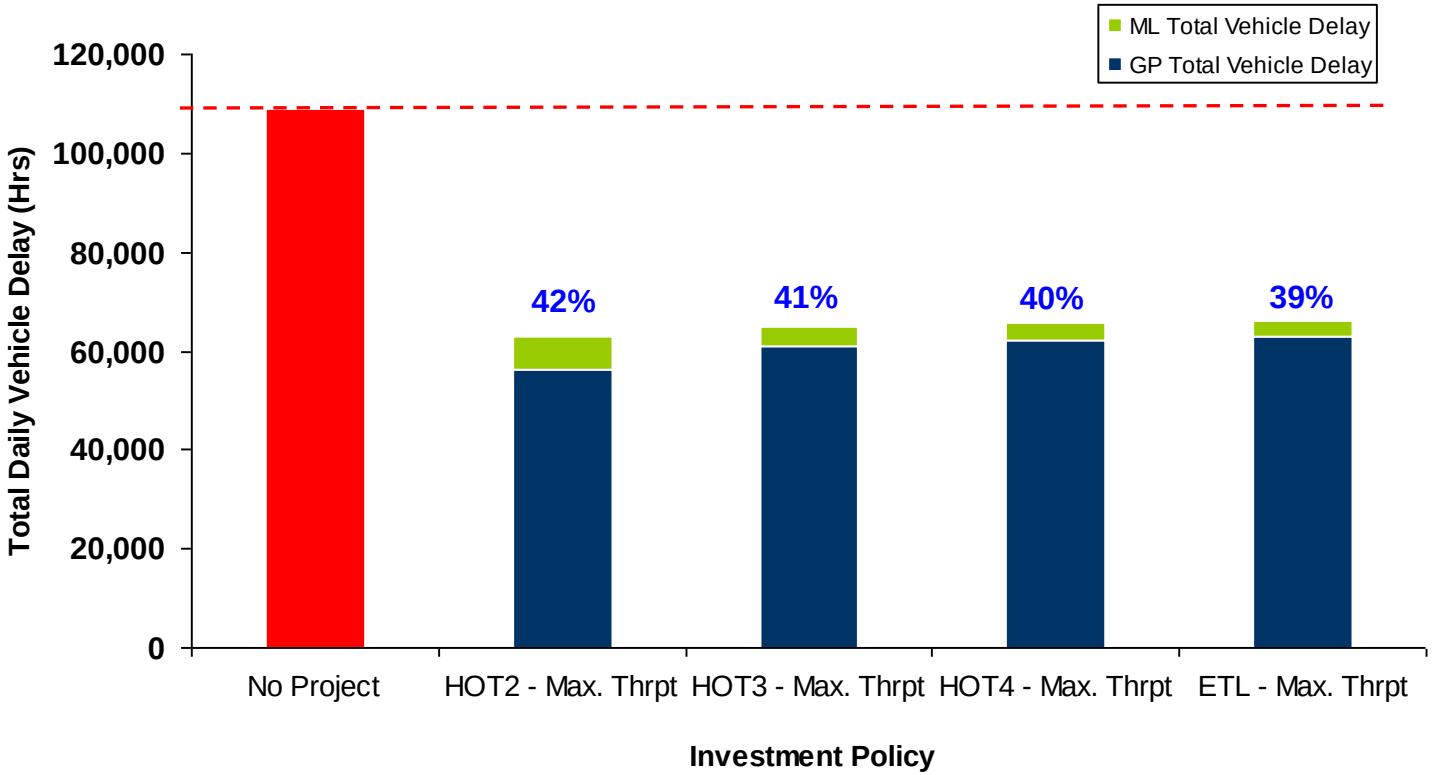
Distance ≈ 33 Miles



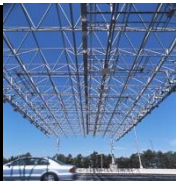
SR 400 Corridor – Transportation User Benefits (2030 Max Throughput)



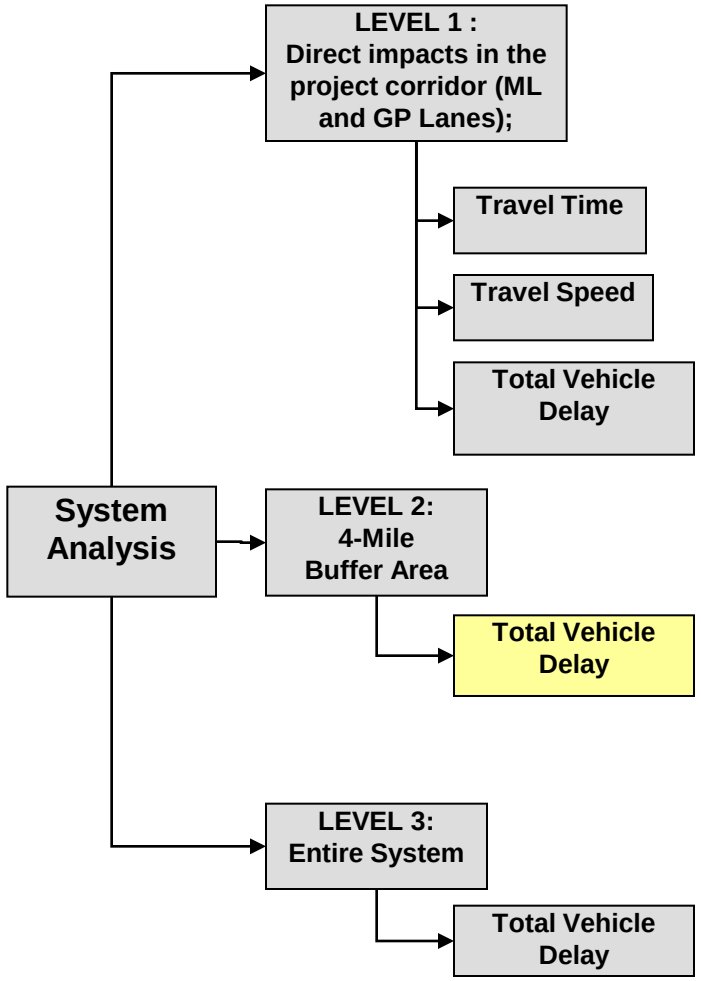
Decrease in Total Daily Vehicle Delay along this corridor relative to the "No Project" scenario

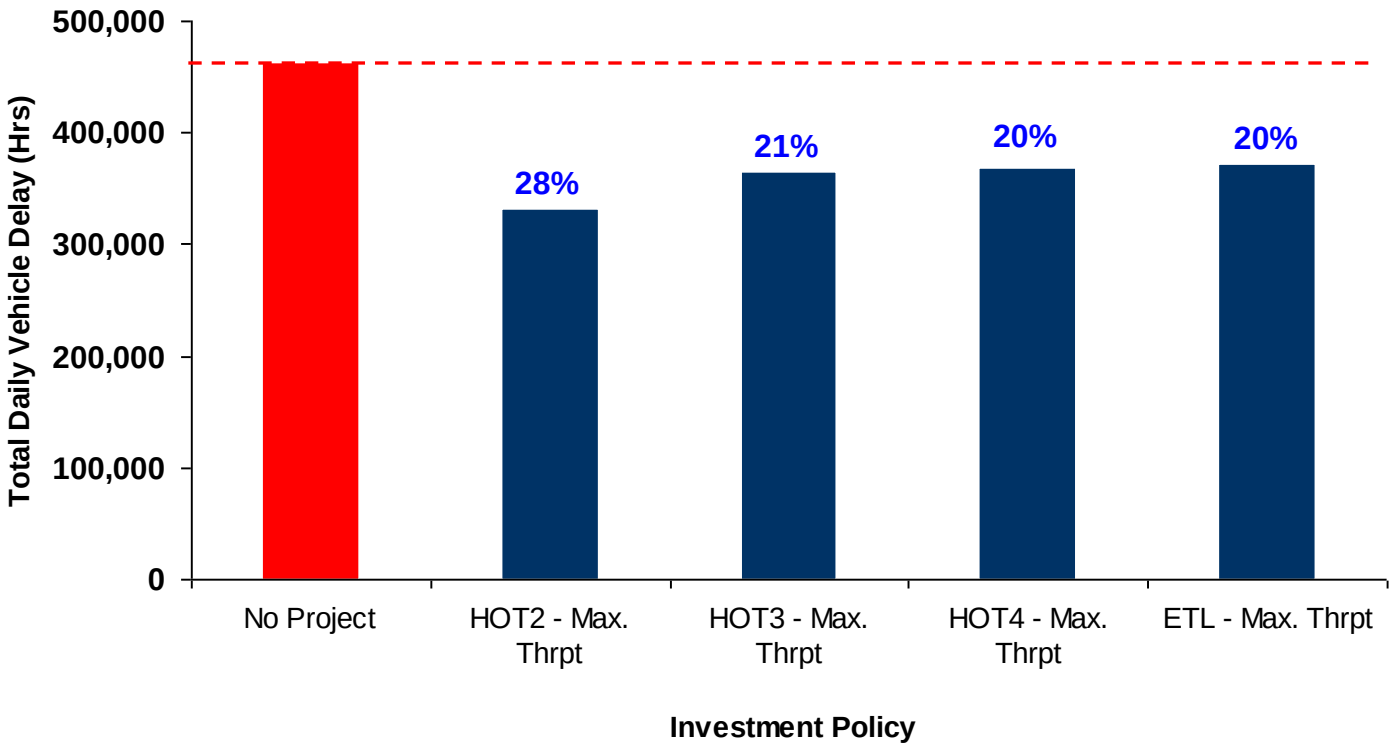


Distance ≈ 33 Miles



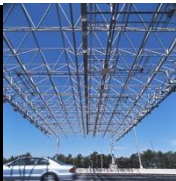
SR 400 Corridor – Transportation User Benefits (2030 Max Throughput)



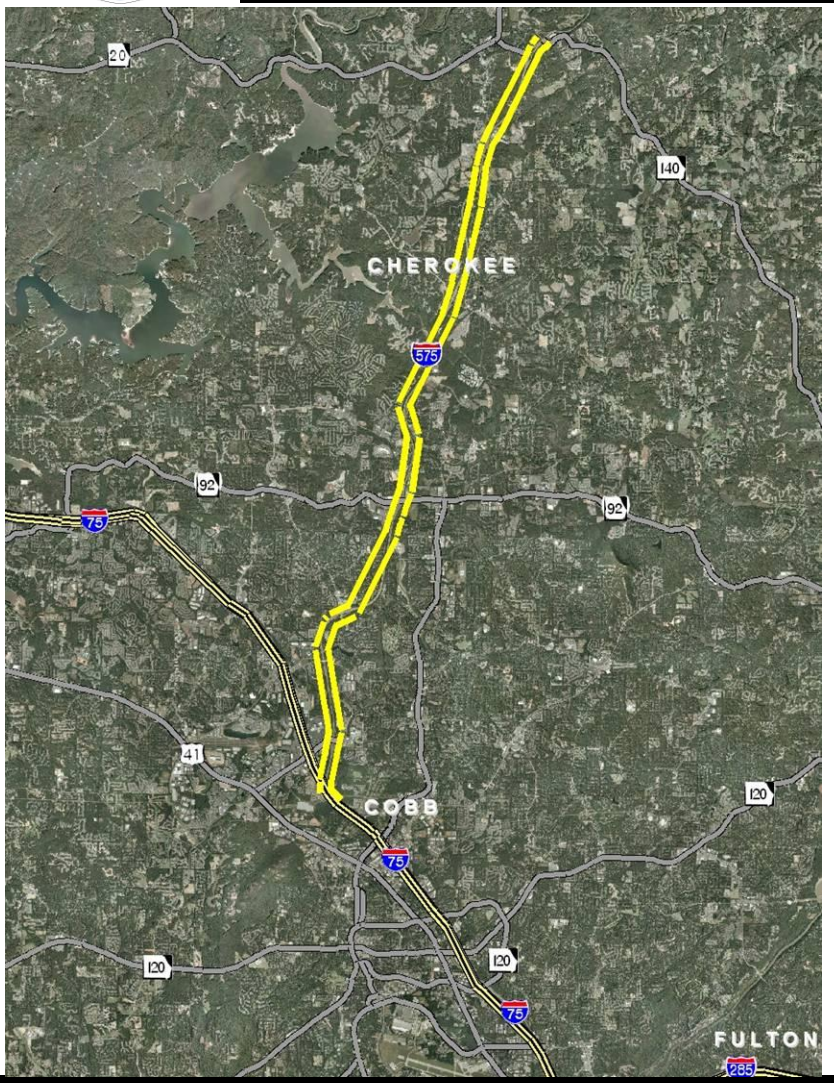


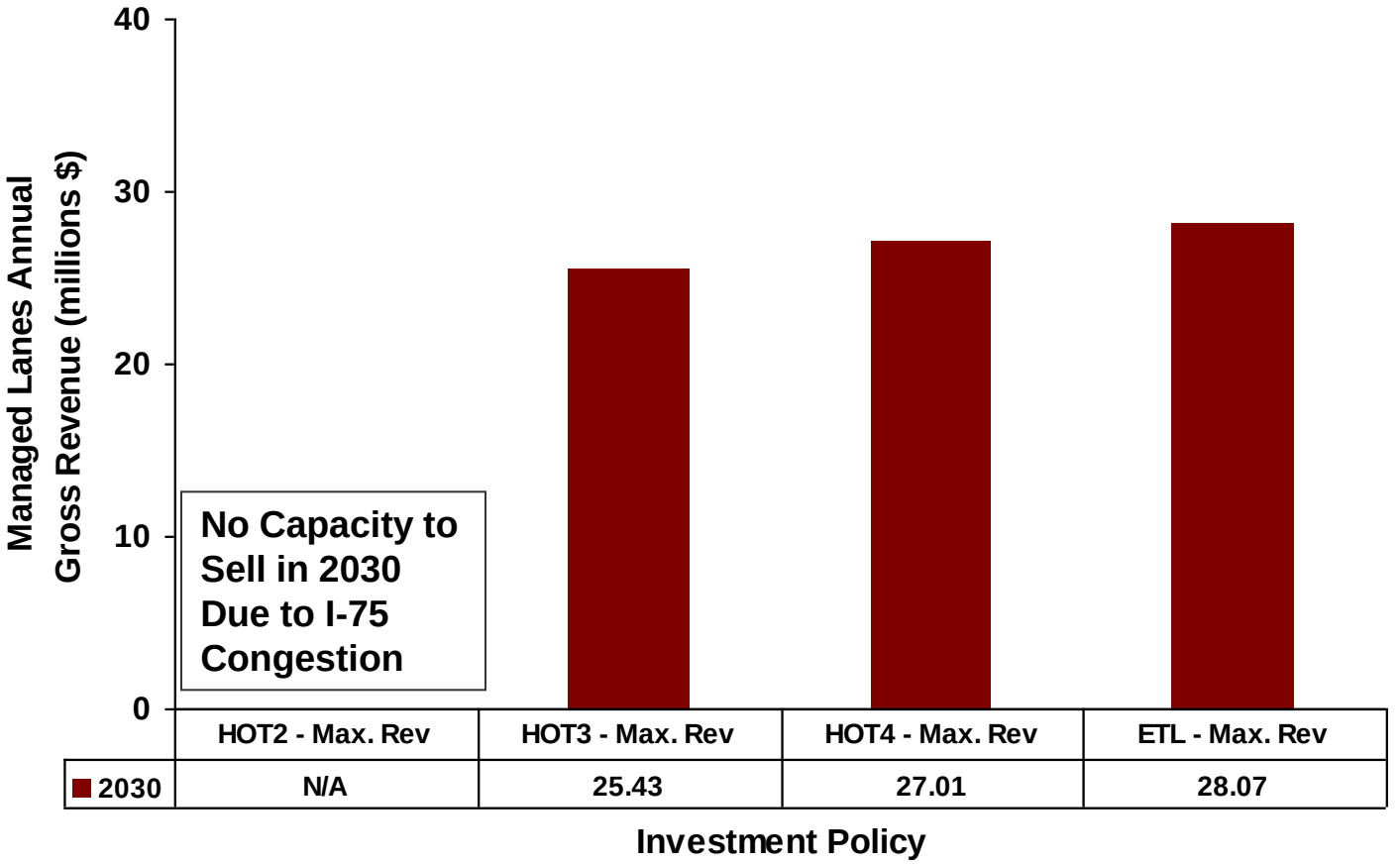
Distance ≈ 33 Miles





I-575 Corridor – Max Revenue Forecast

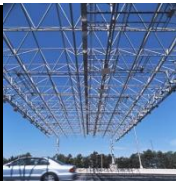




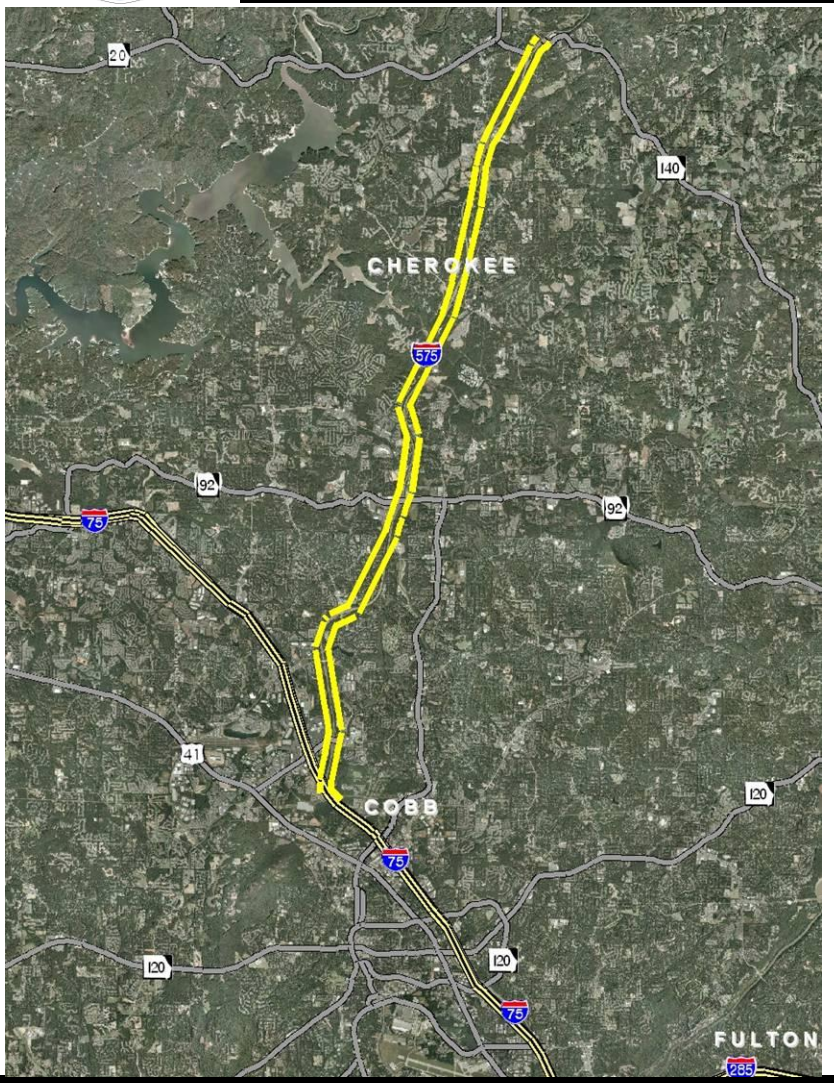
Distance ≈ 20 Miles

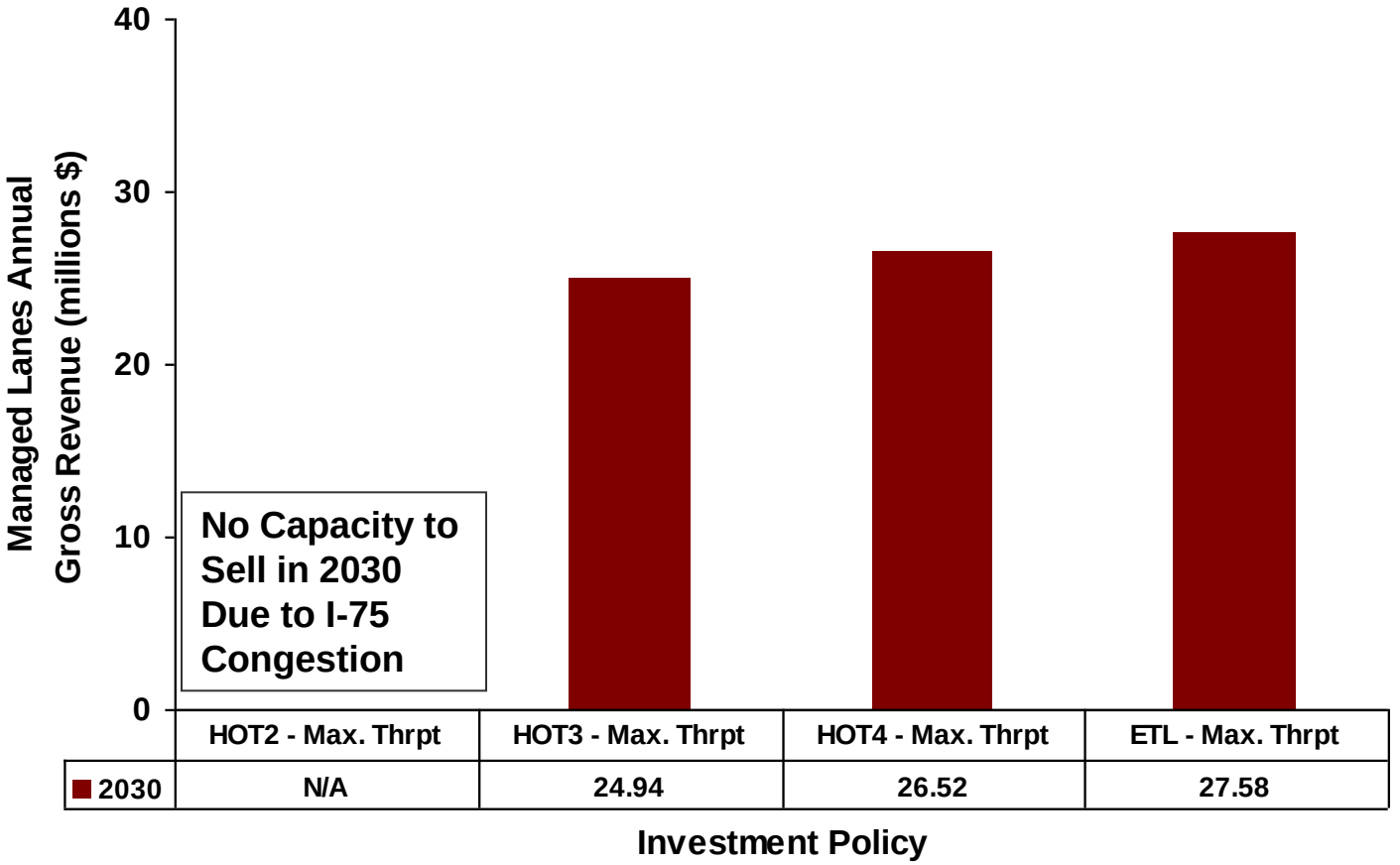
*** Toll Rates established with ETL policy were used for all HOT policies.**

HNTB



I-575 Corridor – Max Throughput Forecast

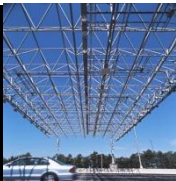




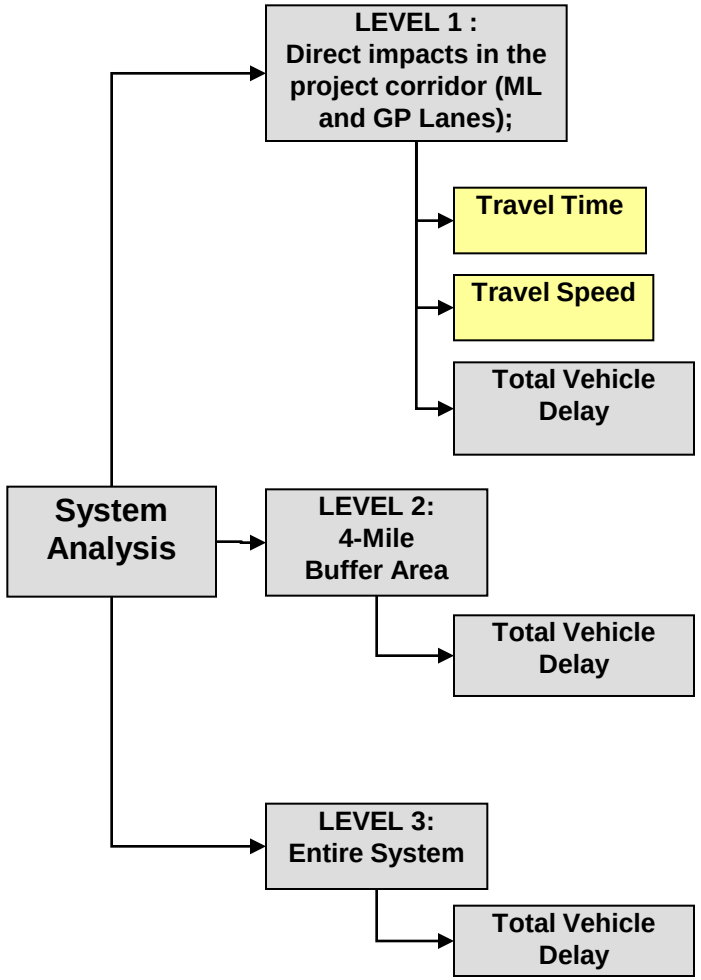
Distance ≈ 20 Miles

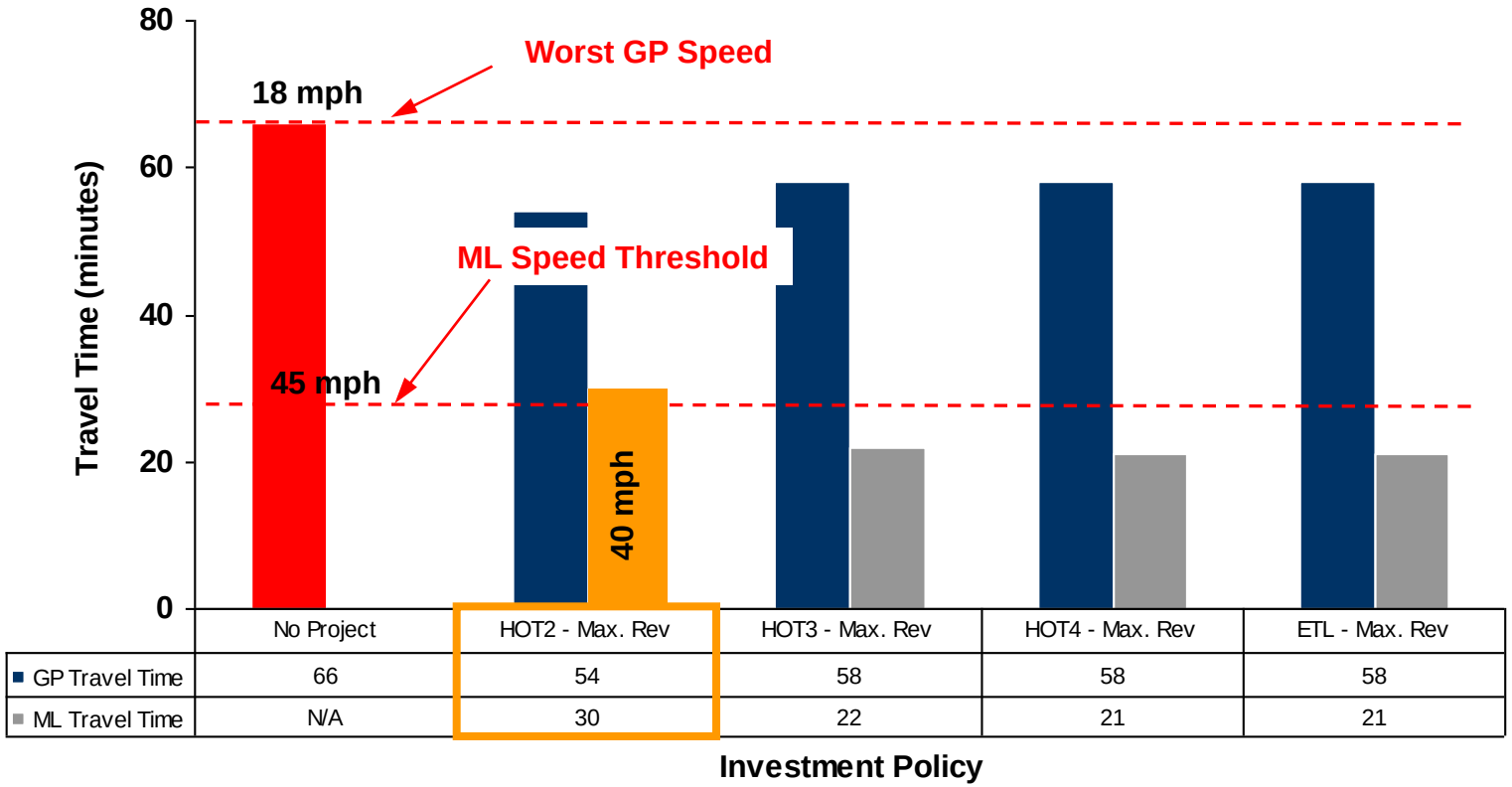
*** Toll Rates established with ETL policy were used for all HOT policies.**

HNTB



I-575 Corridor
– Transportation User Benefits (2030 Max Revenue)

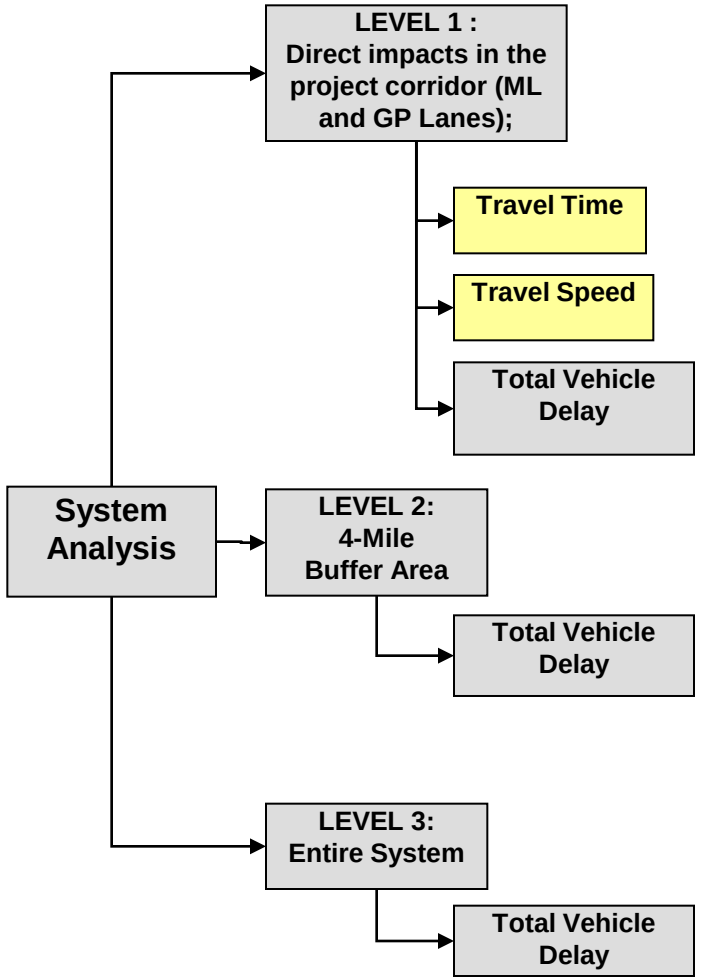


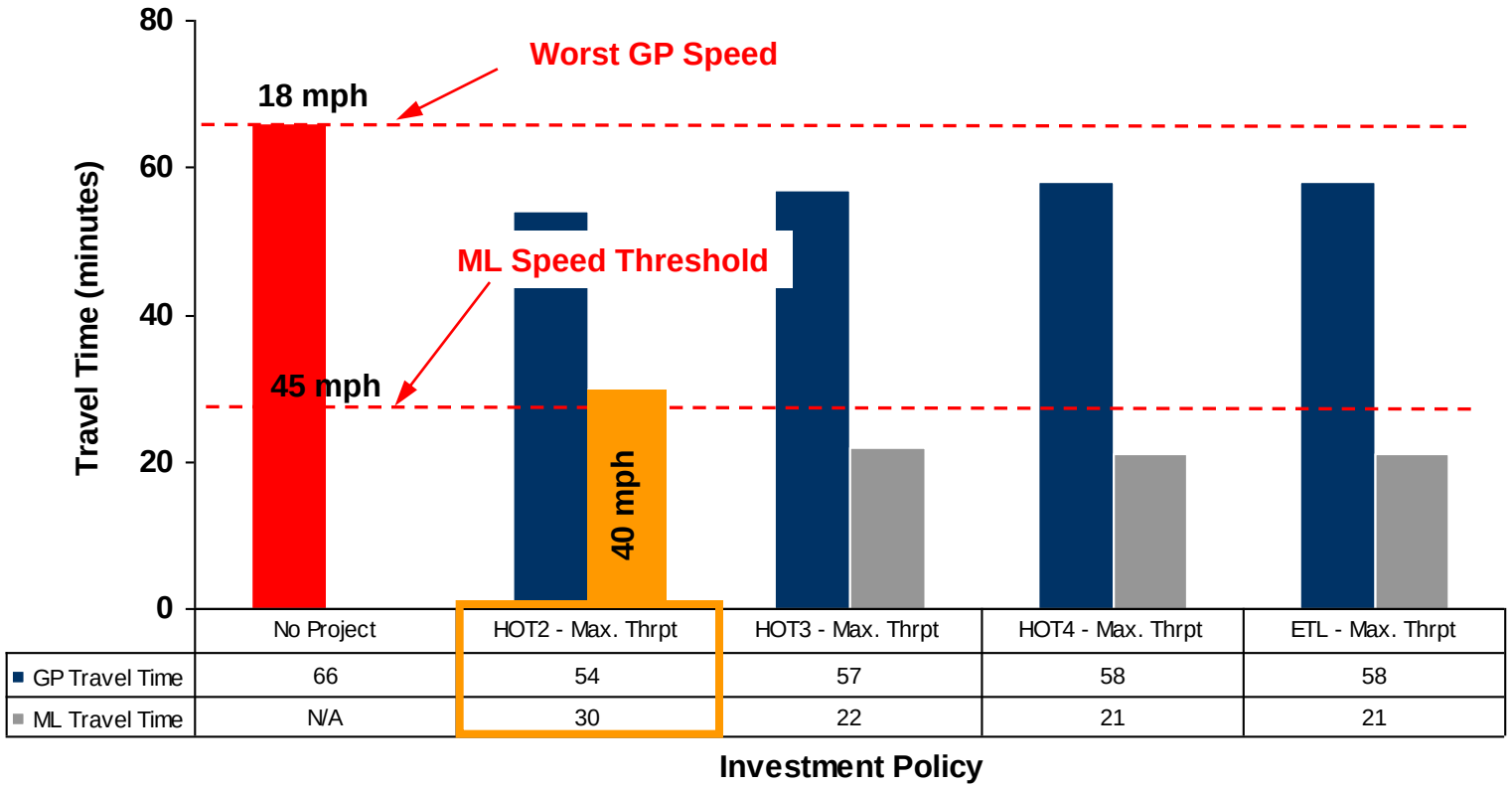


	No Project	HOT2 - Max. Rev	HOT3 - Max. Rev	HOT4 - Max. Rev	ETL - Max. Rev
GP Travel Time	66	54	58	58	58
ML Travel Time	N/A	30	22	21	21

–Distance ≈ 20 Miles
– GP Travel Speed (Envision 6): 20 mph
– GP Travel Speed: 18 - 22 mph
– ML Travel Speed: > 50 mph

I-575 Corridor
– Transportation User Benefits (2030 Max Throughput)

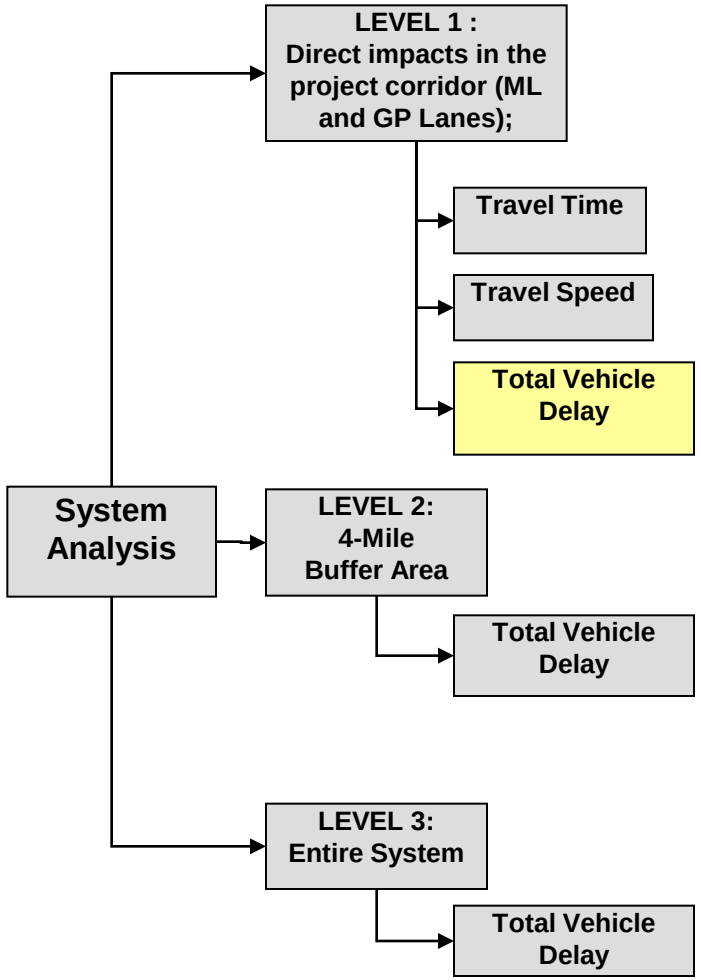




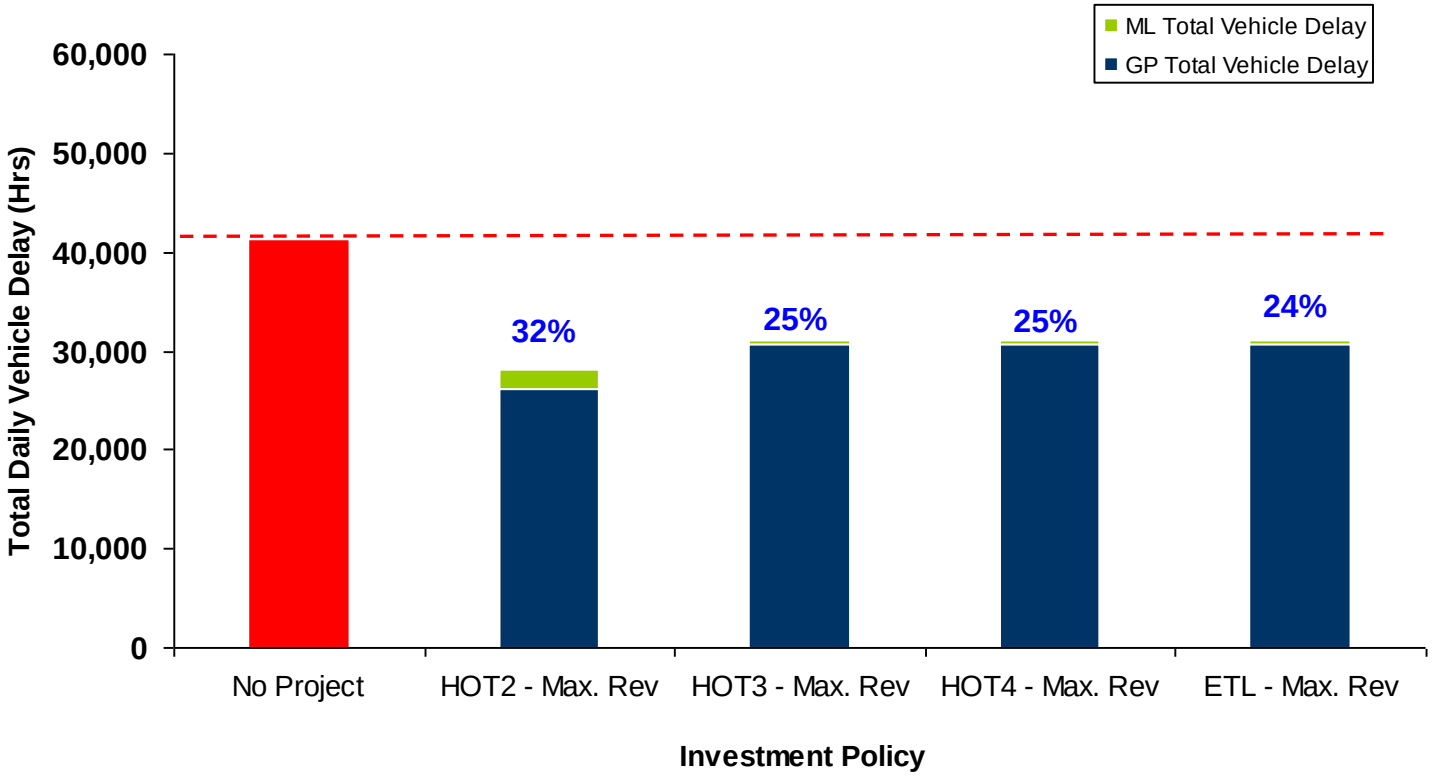
	No Project	HOT2 - Max. Thrpt	HOT3 - Max. Thrpt	HOT4 - Max. Thrpt	ETL - Max. Thrpt
GP Travel Time	66	54	57	58	58
ML Travel Time	N/A	30	22	21	21

–Distance ≈ 20 Miles
– GP Travel Speed (Envision 6): 20 mph
– GP Travel Speed: 18 - 22 mph
– ML Travel Speed: > 50 mph

I-575 Corridor
– Transportation User Benefits (2030 Max Revenue)



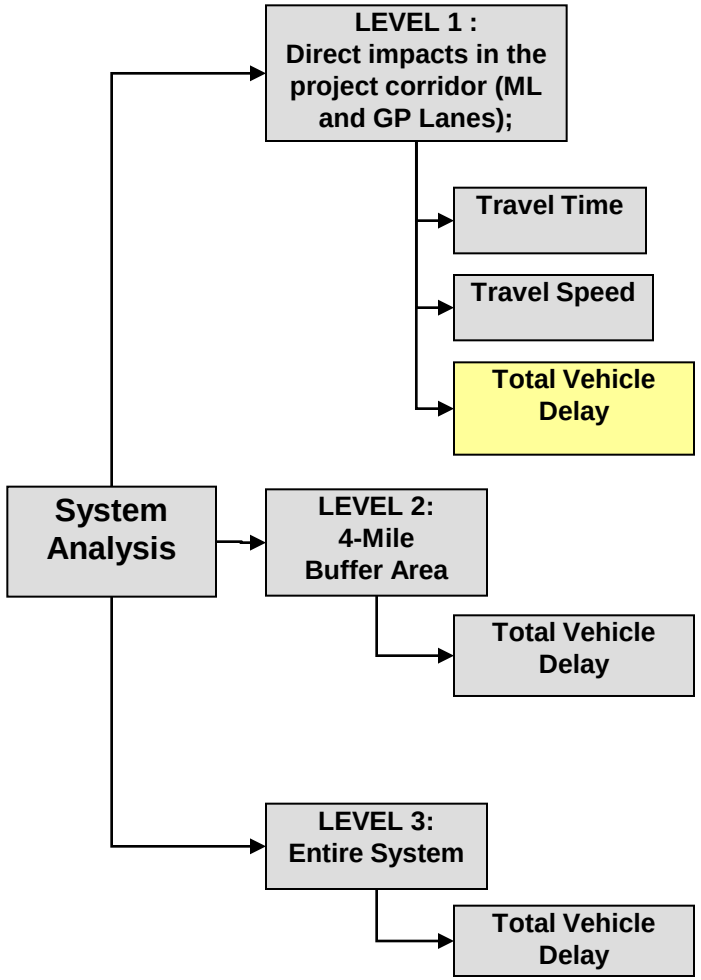
Decrease in Total Daily Vehicle Delay along this corridor relative to the "No Project" scenario



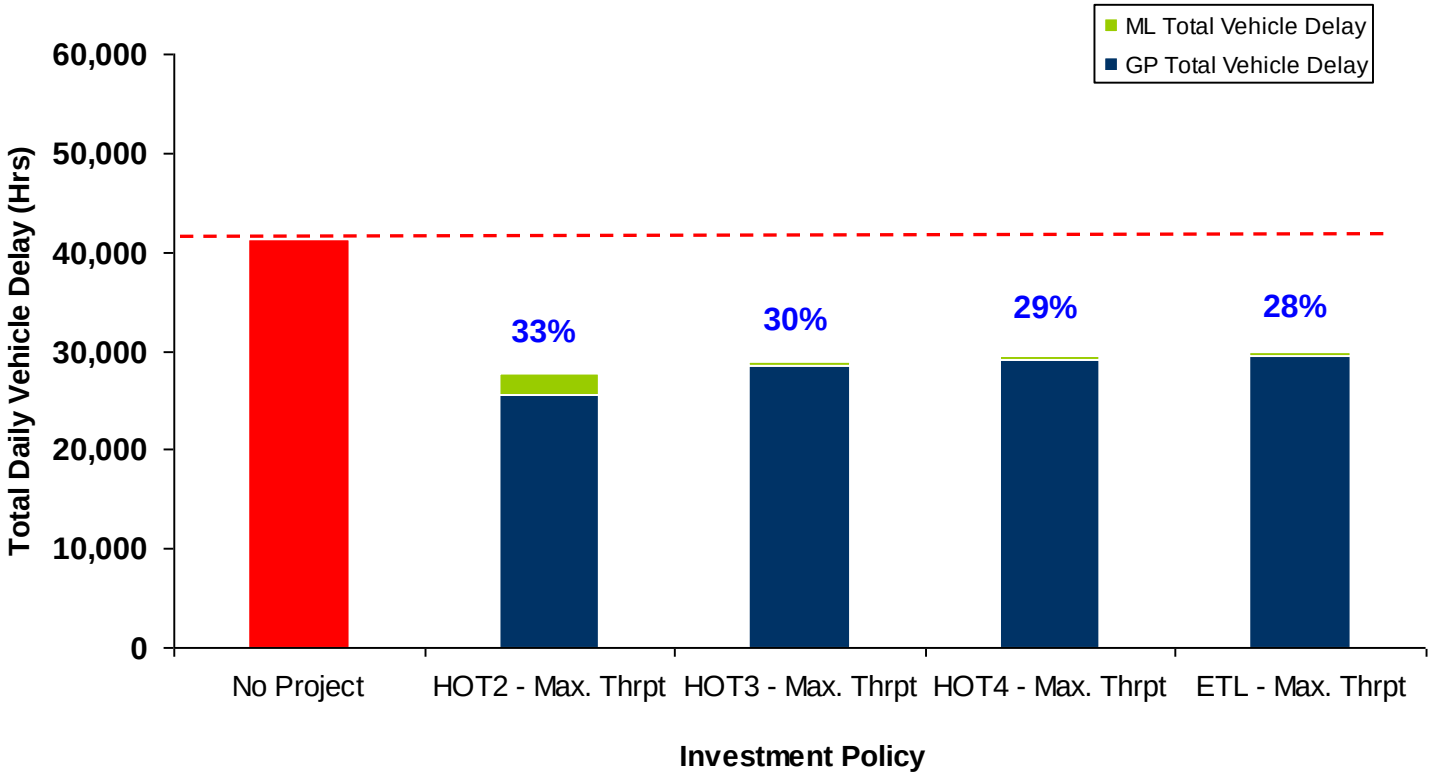
Distance ≈ 20 Miles



I-575 Corridor
– Transportation User Benefits (2030 Max Throughput)

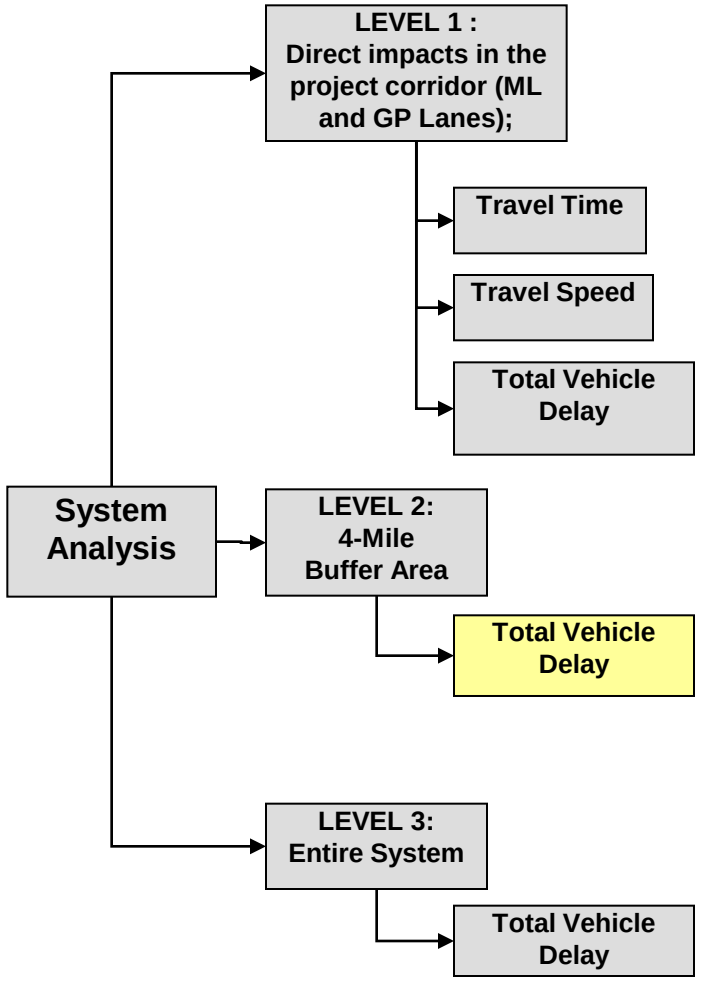


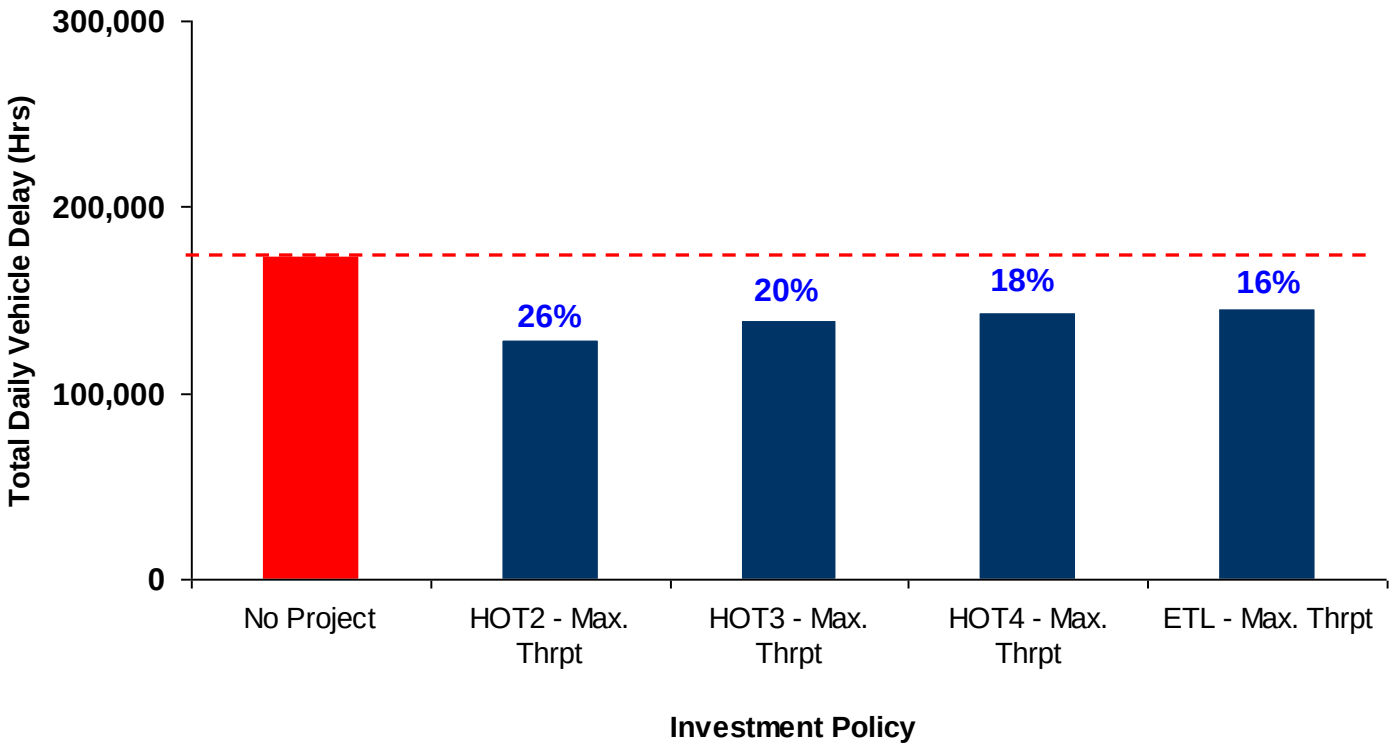
Decrease in Total Daily Vehicle Delay along this corridor relative to the "No Project" scenario



Distance ≈ 20 Miles

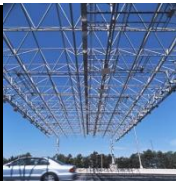
I-575 Corridor
– Transportation User Benefits (2030 Max Throughput)





Distance ≈ 20 Miles

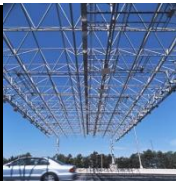




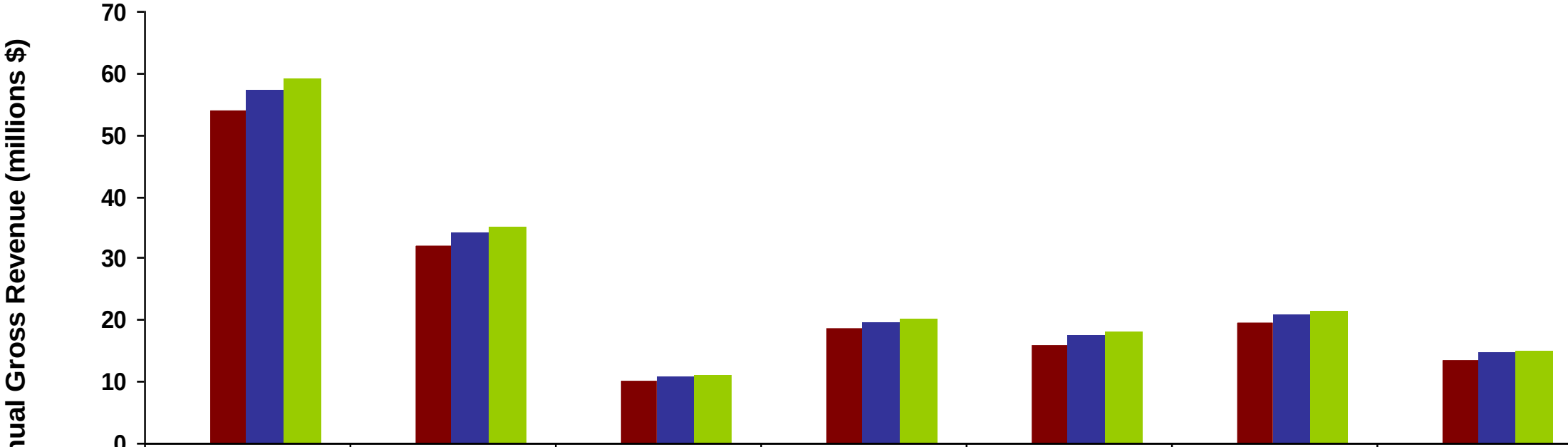
Interstate Segments Inside of I-285

- Downtown Connector
- I-85 North and South
- I-75 North and South
- I-20 East and West





Interstate Segments Inside of I-285: I-20, I-75, I-85 (2030 Max Revenue)

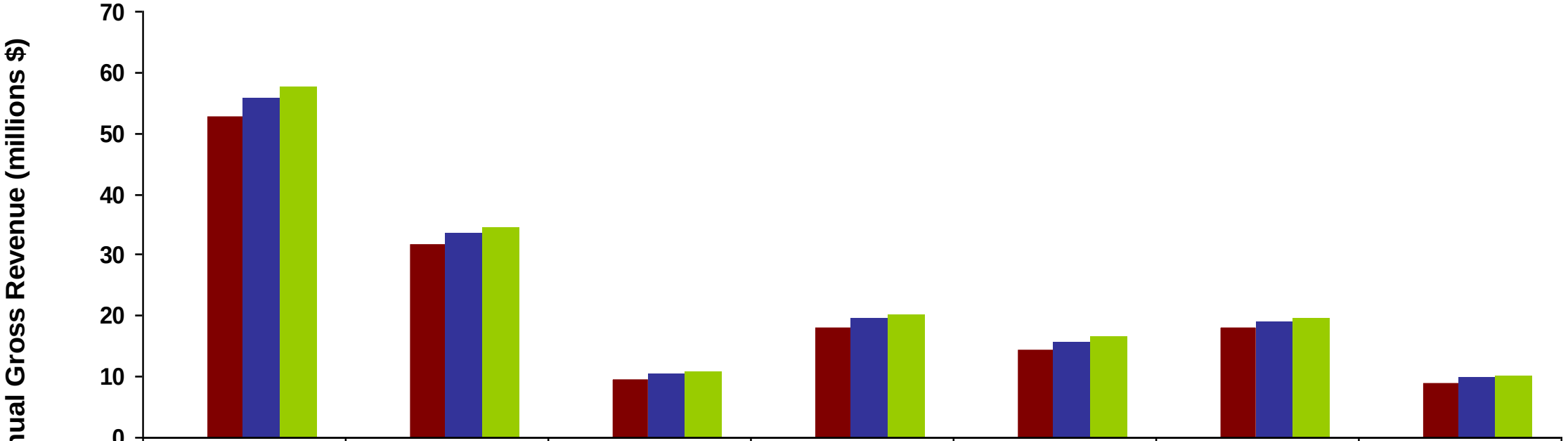


	D.C. - Max. Rev	I-85N- Max. Rev	I-85S- Max. Rev	I-75N- Max. Rev	I-75S- Max. Rev	I-20E- Max. Rev	I-20W- Max. Rev
HOT2+	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HOT3+	54.09	32.35	10.46	18.73	16.24	19.71	13.71
HOT4+	57.15	34.03	10.79	19.61	17.20	20.62	14.51
ETL	59.19	35.15	11.01	20.20	17.84	21.22	15.04

Investment Policy



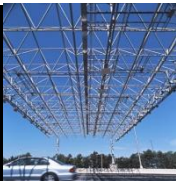
Interstate Segments Inside of I-285: I-20, I-75, I-85 (2030 Max Throughput)



	D.C. - Max. Thrpt	I-85N - Max. Thrpt	I-85S - Max. Thrpt	I-75N - Max. Thrpt	I-75S - Max. Thrpt	I-20E - Max. Thrpt	I-20W - Max. Thrpt
HOT2+	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HOT3+	52.89	31.89	9.84	18.30	14.58	18.23	9.23
HOT4+	55.73	33.44	10.37	19.35	15.61	18.93	9.70
ETL	57.63	34.47	10.73	20.05	16.30	19.40	10.02

Investment Policy

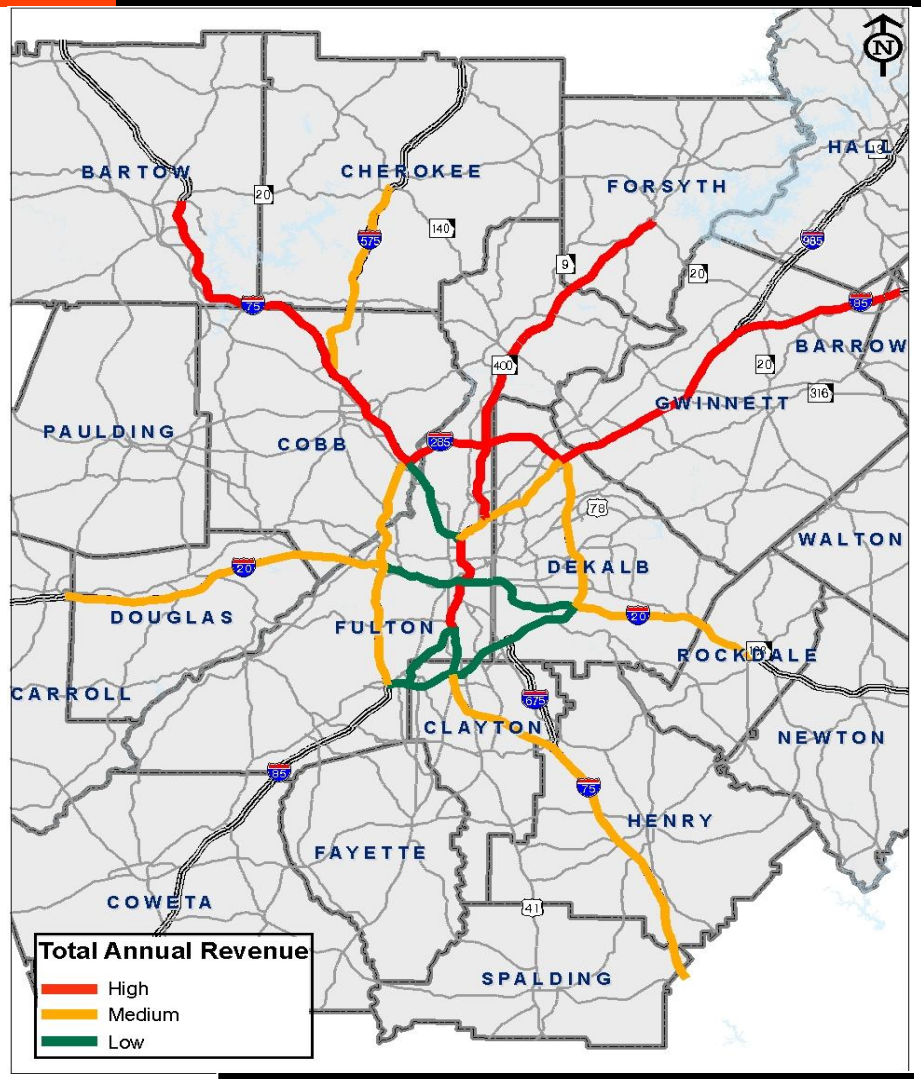




Corridor Summaries
Revenue and Delay



HOT3 Annual Corridor Revenue* Ranking

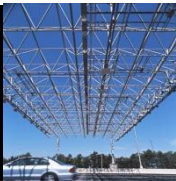


- **High $52.89 – $93.89 million**
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ SR 400 from I-85 to SR 20
  - ✓ Downtown Connector
- **Medium $24.94 – $46.49 million**
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-575 from I-75 to SR 20
  - ✓ I-85 North Inside I-285
- **Low $9.23 – $20.94 million**
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-75 North Inside I-285
  - ✓ I-20 East Inside I-285
  - ✓ I-75 South Inside I-285
  - ✓ I-85 South Inside I-285
  - ✓ I-20 West Inside I-285

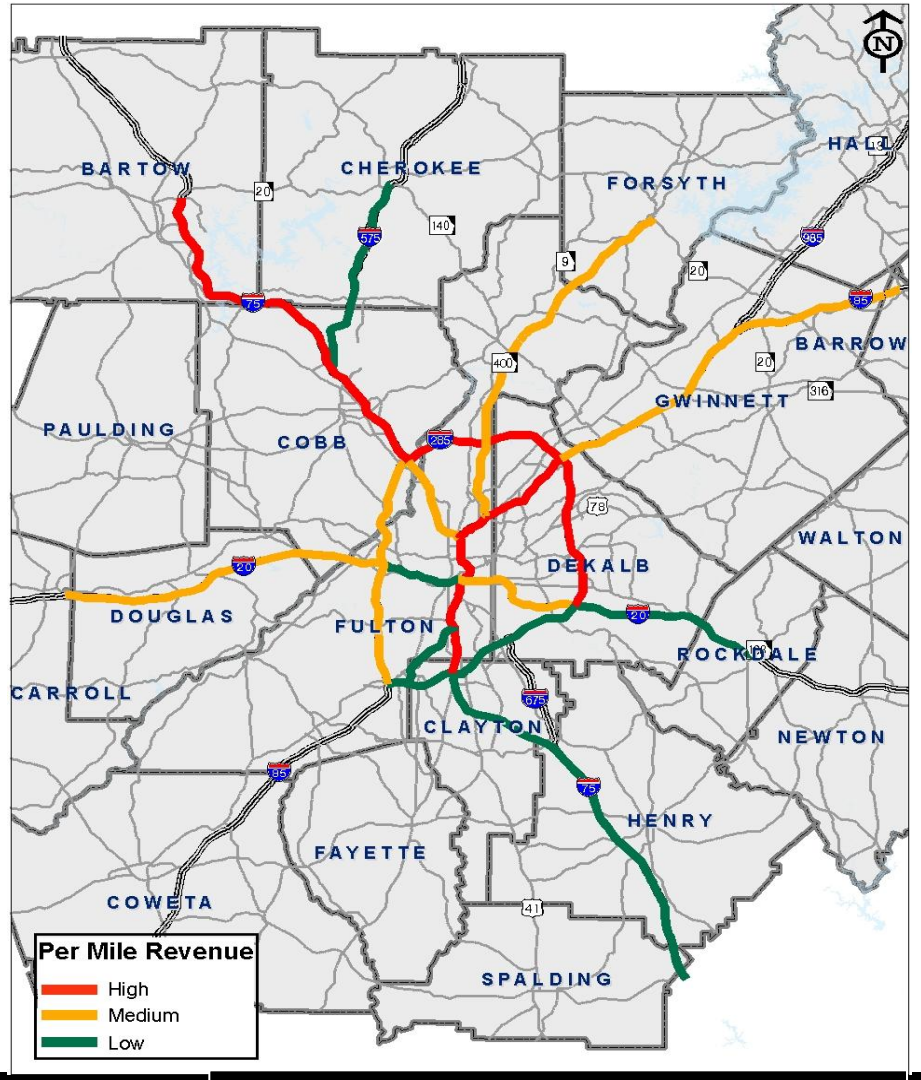
***Revenue for Max Throughput Policy**

HNTB





HOT3 Per Mile Corridor Revenue* Ranking



- **High $2.66 – $6.61 million**
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ Downtown Connector
  - ✓ I-75 South Inside I-285
  - ✓ I-85 North Inside I-285

- **Medium $1.67 – $2.09 million**
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ SR 400 from I-85 to SR 20
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-75 North Inside I-285
  - ✓ I-20 East Inside I-285

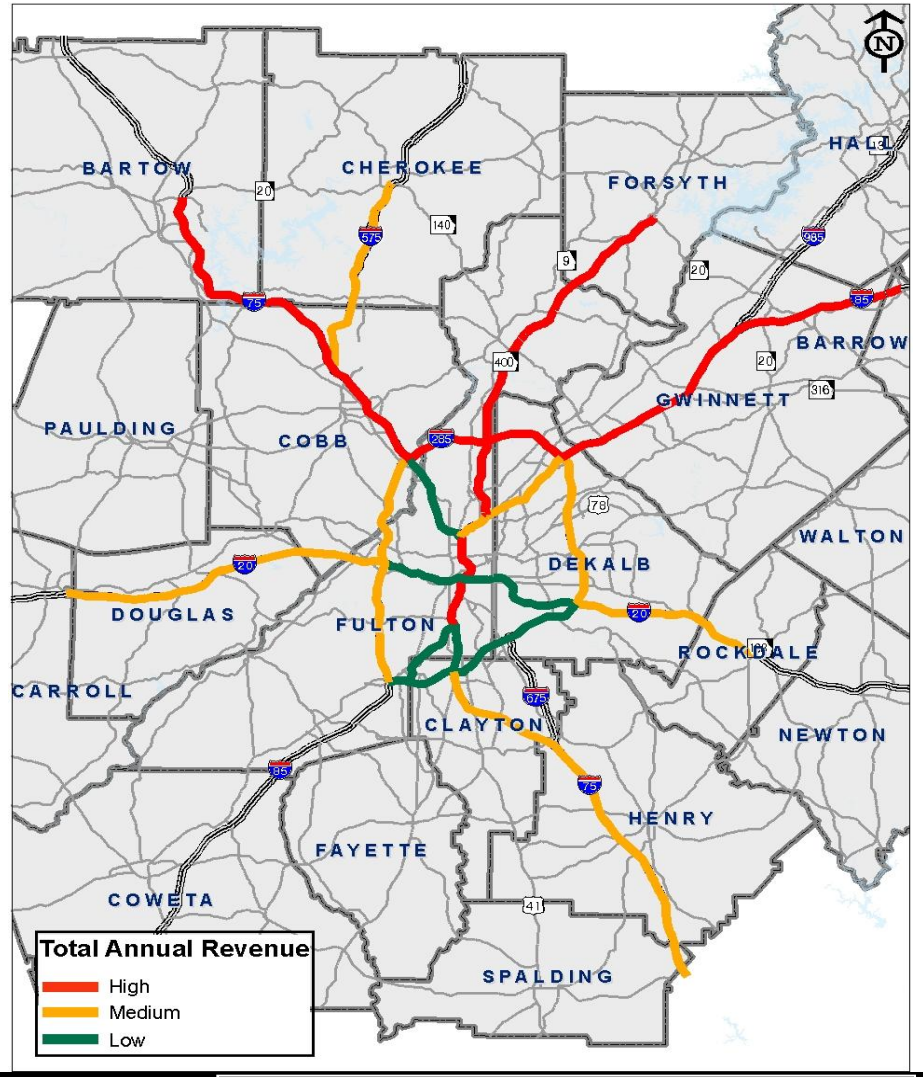
- **Low $1.23 – $1.47 million**
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-575 from I-75 to SR 20
  - ✓ I-85 South Inside I-285
  - ✓ I-20 West Inside I-285

***Revenue for Max Throughput Policy**

HNTB



ETL Annual Corridor Revenue* Ranking

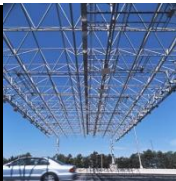


- **High $57.63 – $101.17 million**
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ SR 400 from I-85 to SR 20
  - ✓ Downtown Connector
- **Medium $26.54 – $50.70 million**
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-575 from I-75 to SR 20
  - ✓ I-85 North Inside I-285
- **Low $10.02 – $21.37 million**
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-75 North Inside I-285
  - ✓ I-20 East Inside I-285
  - ✓ I-75 South Inside I-285
  - ✓ I-85 South Inside I-285
  - ✓ I-20 West Inside I-285

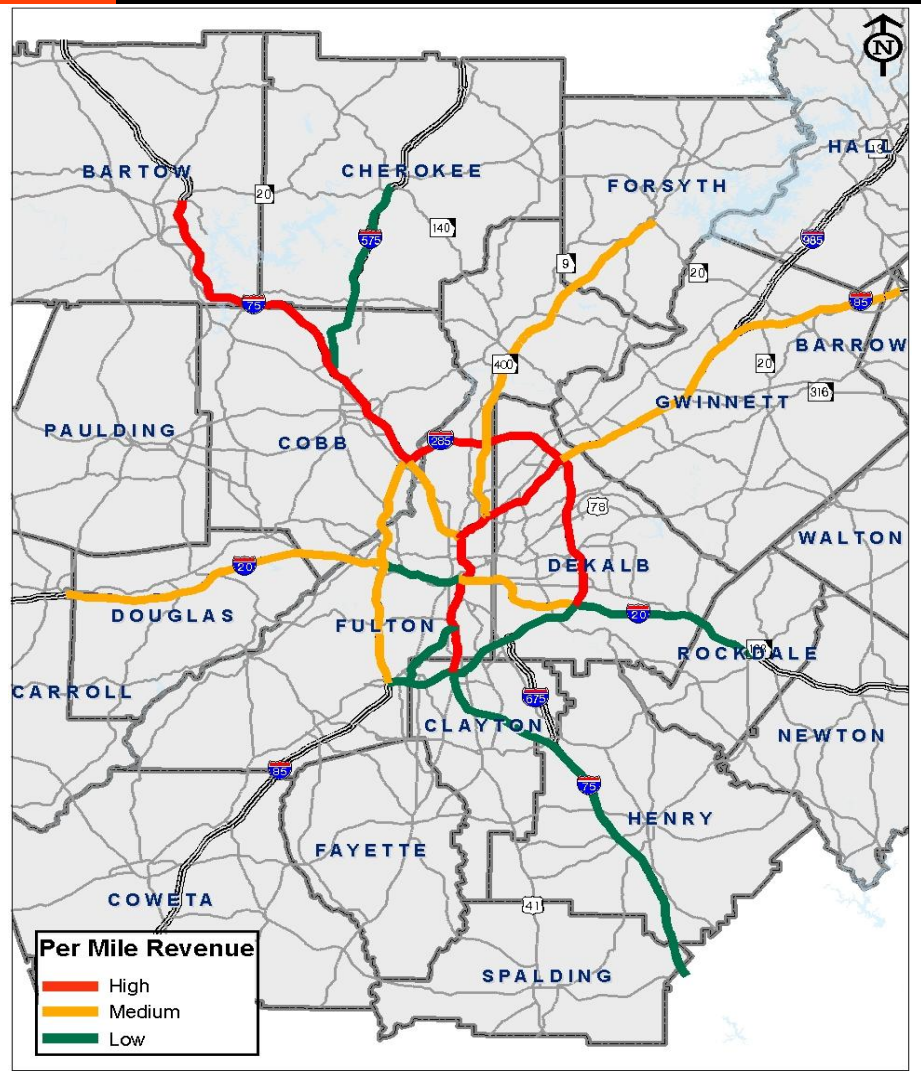
***Revenue for Max Throughput Policy**

HNTB





ETL Per Mile Corridor Revenue* Ranking



- **High $2.87 – $7.20 million**
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ Downtown Connector
  - ✓ I-75 South Inside I-285
  - ✓ I-85 North Inside I-285

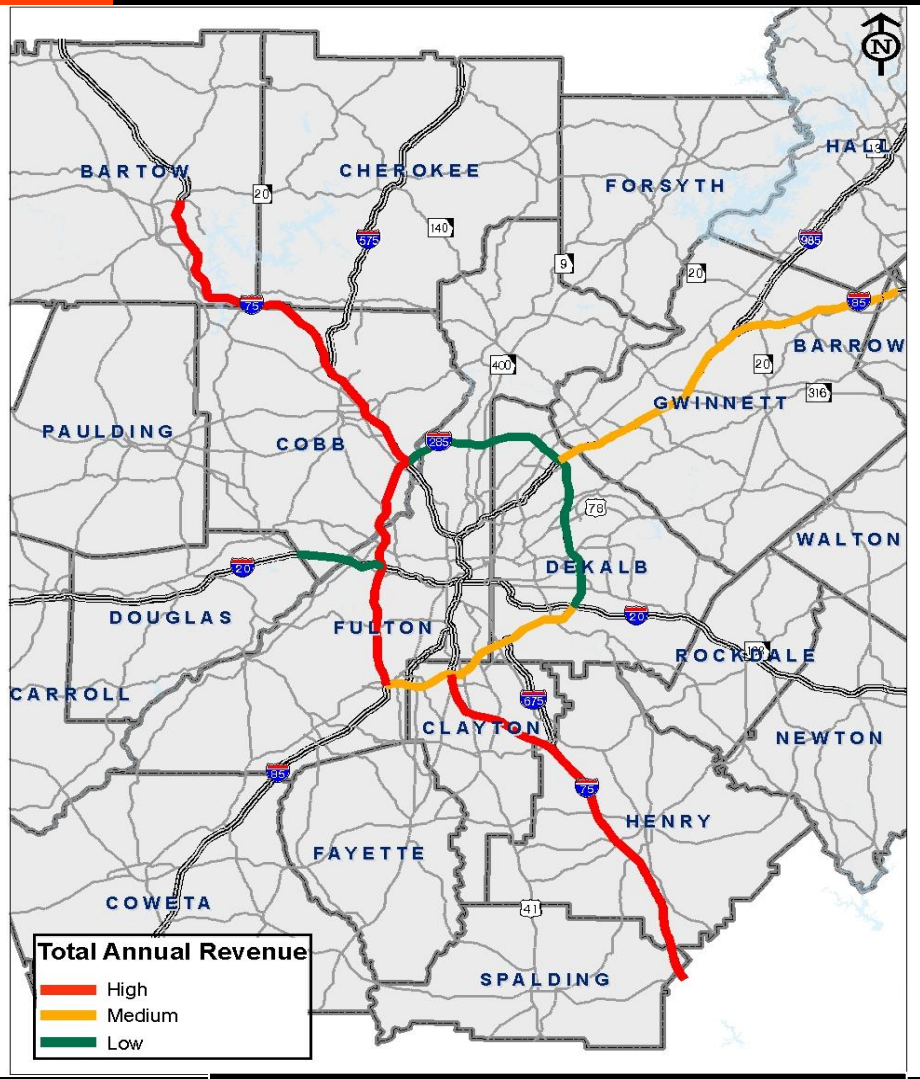
- **Medium $1.80 – $2.28 million**
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ SR 400 from I-85 to SR 20
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-75 North Inside I-285
  - ✓ I-20 East Inside I-285

- **Low $1.26 – $1.56 million**
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-575 from I-75 to SR 20
  - ✓ I-85 South Inside I-285
  - ✓ I-20 West Inside I-285

***Revenue for Max Throughput Policy**



TOT Annual Corridor Revenue* Ranking



- **High $31.73 – $38.31 million**
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-75 North from I-285 North to SR 20
- **Medium $25.06 – $27.71 million**
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-85 North from I-285 North to SR 211
- **Low $5.44 – $15.50 million**
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 East from I-20 East to I-85 North

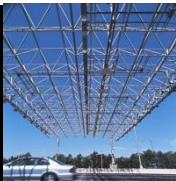
No Capacity

I-575
I-20 East from I-285 East to SR 138
SR 400 from I-85 to SR 20
Downtown Connector
I-20 East Inside I-285
I-20 West Inside I-285
I-75 North Inside I-285
I-75 South Inside I-285
I-85 North Inside I-285
I-85 South Inside I-285

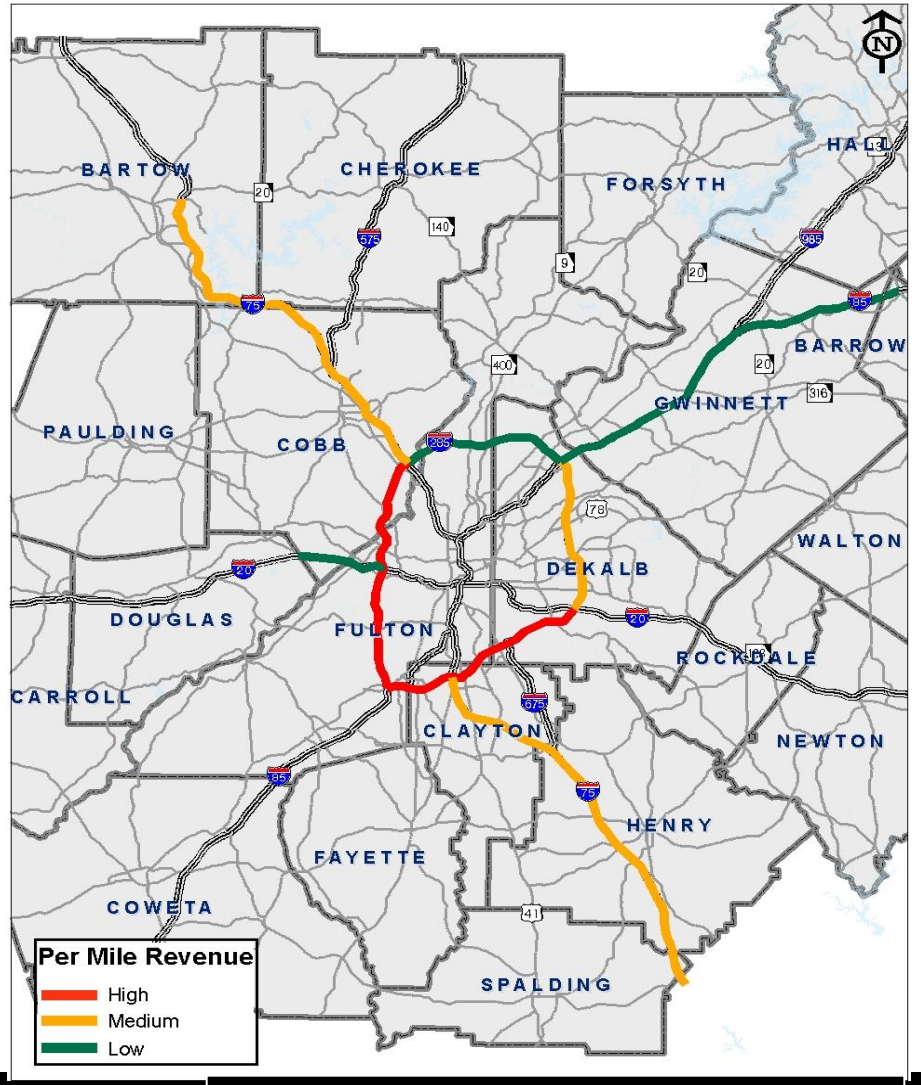
***Revenue for Max Throughput Policy**

HNTB





TOT Per Mile Corridor Revenue* Ranking



- **High $1.63 – $1.82 million**
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-285 South from I-75 South to I-20 East
- **Medium $0.93 – $1.11 million**
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-285 East from I-20 East to I-85 North
- **Low $0.23 – $0.74 million**
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ I-20 West from I-285 West to Post Road

No Capacity

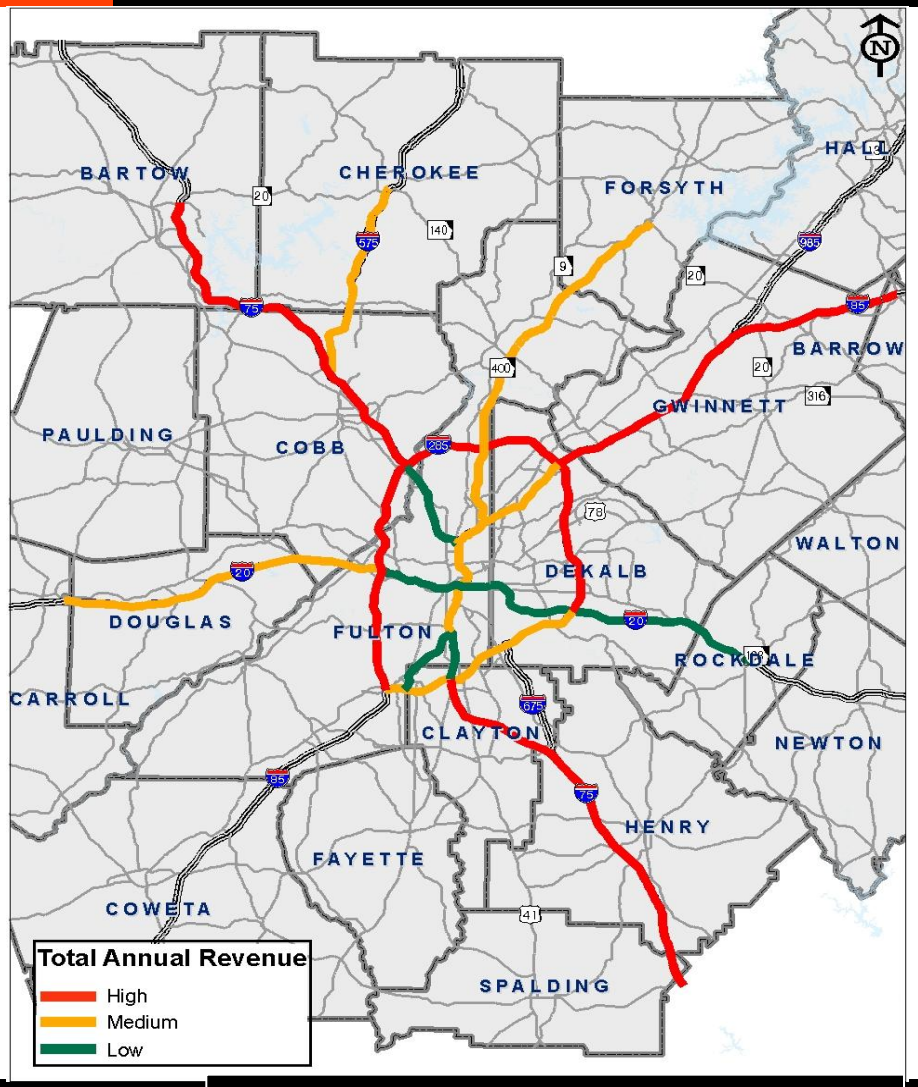
I-575
I-20 East from I-285 East to SR 138
SR 400 from I-85 to SR 20
Downtown Connector
I-20 East Inside I-285
I-20 West Inside I-285
I-75 North Inside I-285
I-75 South Inside I-285
I-85 North Inside I-285
I-85 South Inside I-285

***Revenue for Max Throughput Policy**

HNTB



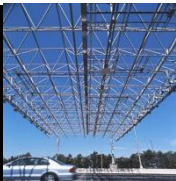
METL Annual Corridor Revenue* Ranking



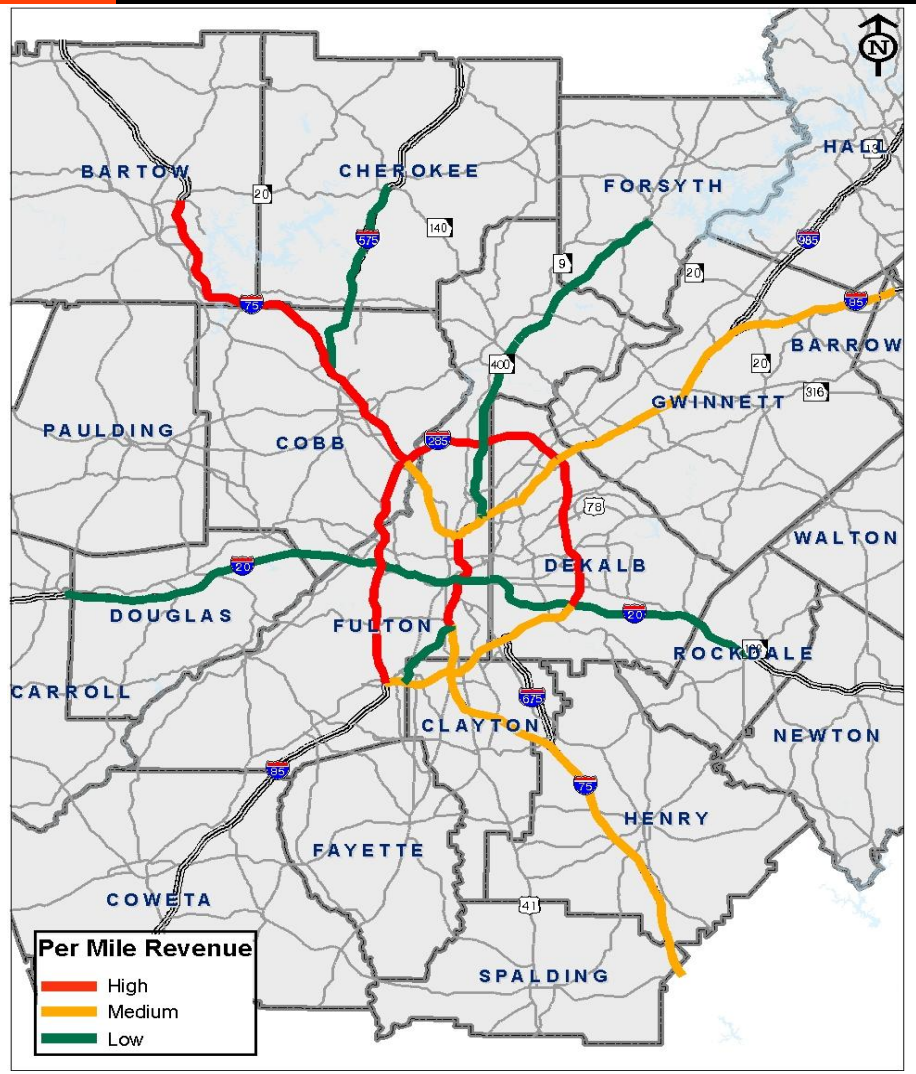
*Revenue for Max Throughput Policy

- **High $68.04 – $136.59 million**
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ I-85 North from I-285 North to SR 211
- **Medium $27.58 – $59.53 million**
  - ✓ Downtown Connector
  - ✓ SR 400 from I-85 to SR 20
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-575
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-85 North Inside I-285
- **Low $10.02 – $26.54 million**
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-20 East Inside I-285
  - ✓ I-20 West Inside I-285
  - ✓ I-85 South Inside I-285
  - ✓ I-75 North Inside I-285
  - ✓ I-75 South Inside I-285





METL Per Mile Corridor Revenue* Ranking

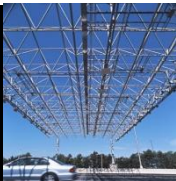


- **High $4.20 – $7.20 million**
  - ✓ Downtown Connector
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-285 North from I-85 North to I-75 North
- **Medium $2.23 – $3.26 million**
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-85 North Inside I-285
  - ✓ I-75 North Inside I-285
  - ✓ I-75 South Inside I-285
- **Low $1.34 – $2.05 million**
  - ✓ I-575
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ SR 400 from I-85 to SR 20
  - ✓ I-20 East Inside I-285
  - ✓ I-20 West Inside I-285
  - ✓ I-85 South Inside I-285

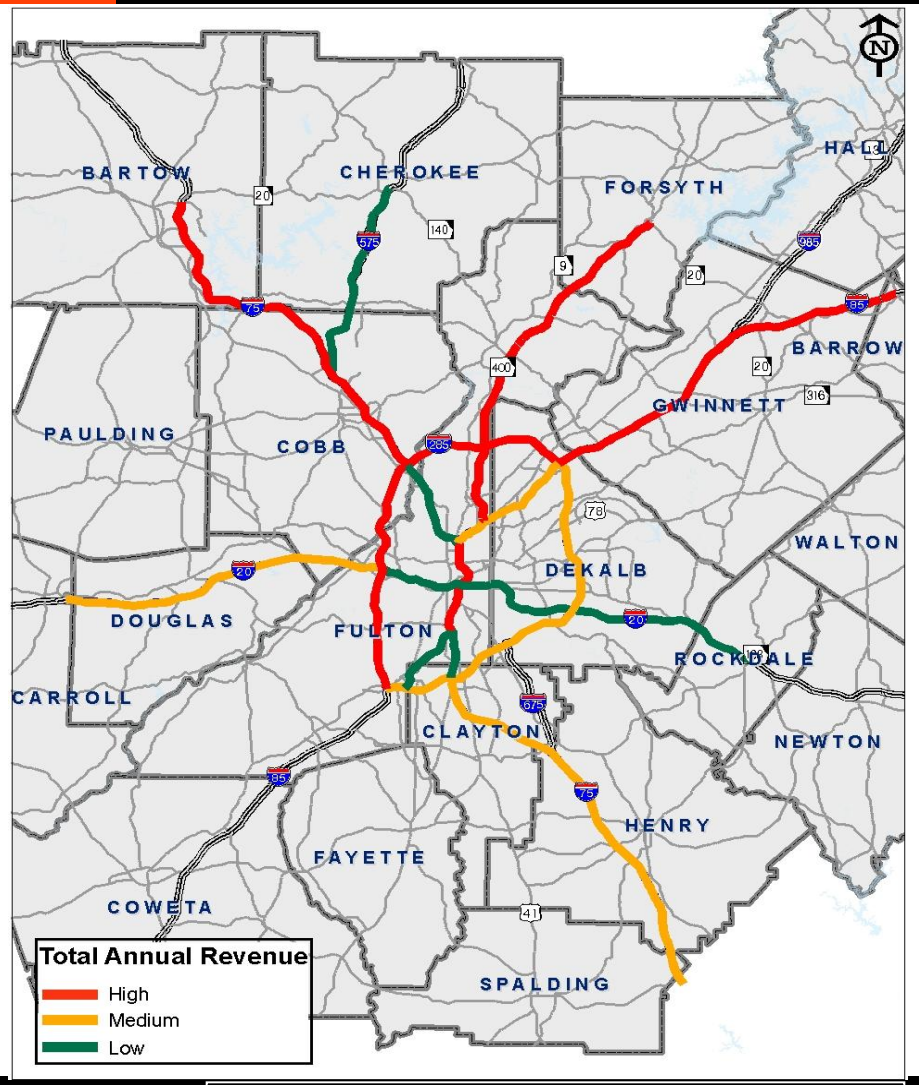
***Revenue for Max Throughput Policy**

HNTB





2+2 Annual Corridor Revenue* Ranking



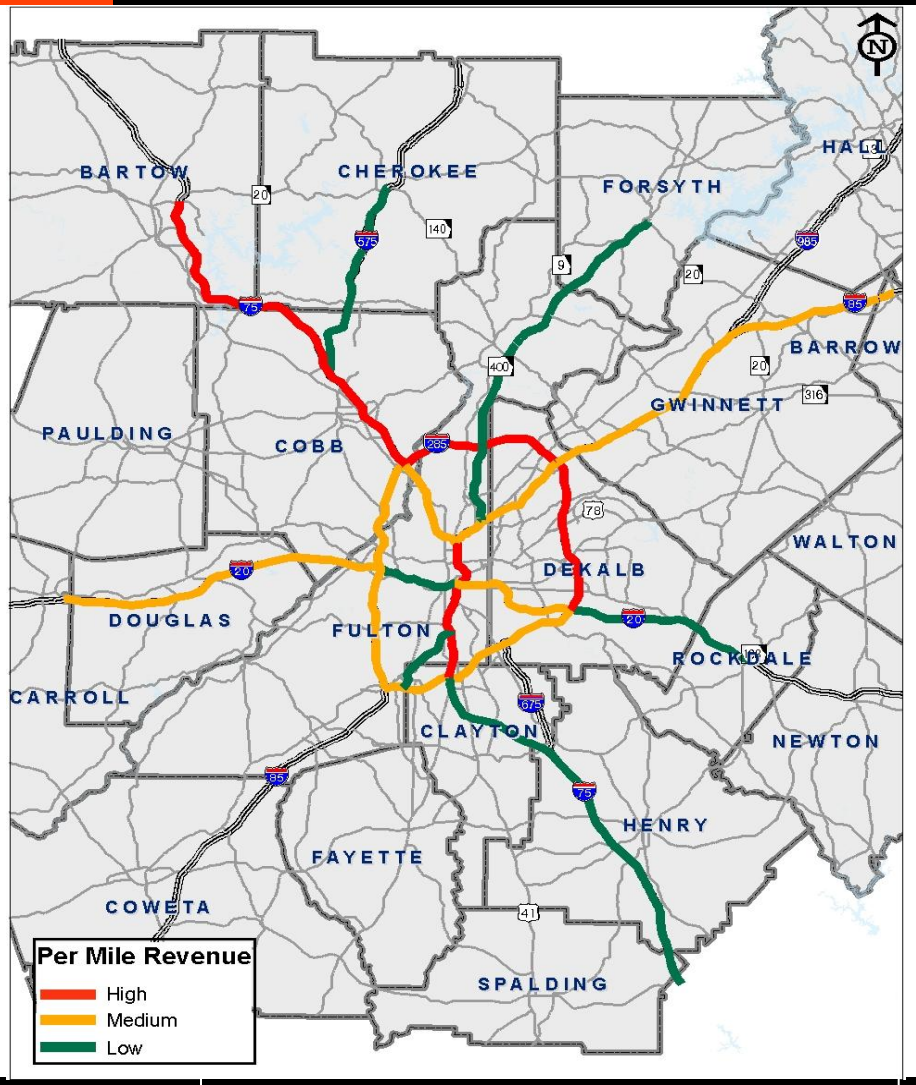
- **High $59.53 – $101.54 million**
  - ✓ Downtown Connector
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ SR 400 from I-85 to SR 20
- **Medium $34.47 – $54.90 million**
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-85 North Inside I-285
- **Low $10.02 – $27.58 million**
  - ✓ I-575
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-20 East Inside I-285
  - ✓ I-20 West Inside I-285
  - ✓ I-85 South Inside I-285
  - ✓ I-75 North Inside I-285
  - ✓ I-75 South Inside I-285

***Revenue for Max Throughput Policy**

HNTB



2+2 Per Mile Corridor Revenue* Ranking



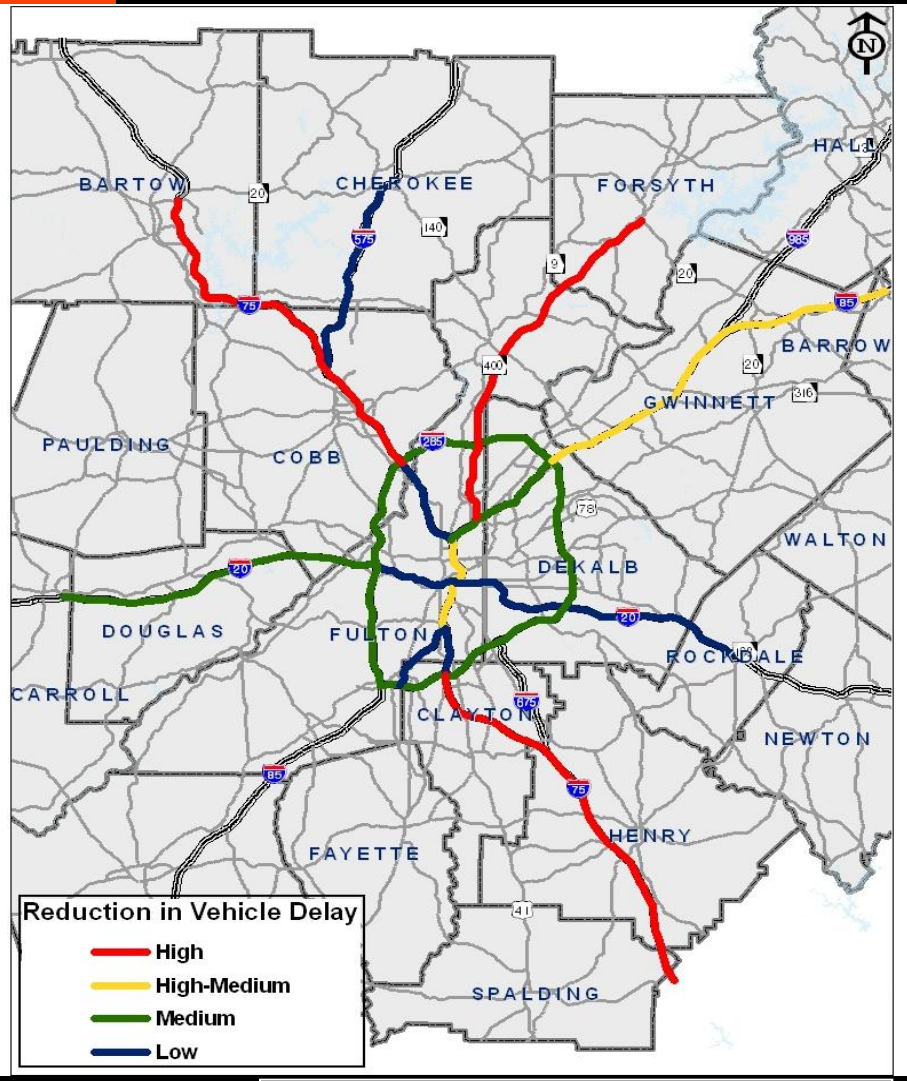
- **High $3.26 – $7.20 million**
  - ✓ Downtown Connector
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ I-75 South Inside I-285
- **Medium $1.92 – $2.92 million**
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-85 North Inside I-285
  - ✓ I-20 East Inside I-285
  - ✓ I-75 North Inside I-285
- **Low $1.34 – $1.80 million**
  - ✓ SR 400 from I-85 to SR 20
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-575
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-20 West Inside I-285
  - ✓ I-85 South Inside I-285

***Revenue for Max Throughput Policy**

HNTB



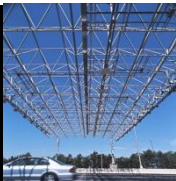
Summary Total Delay Reduction* Ranking



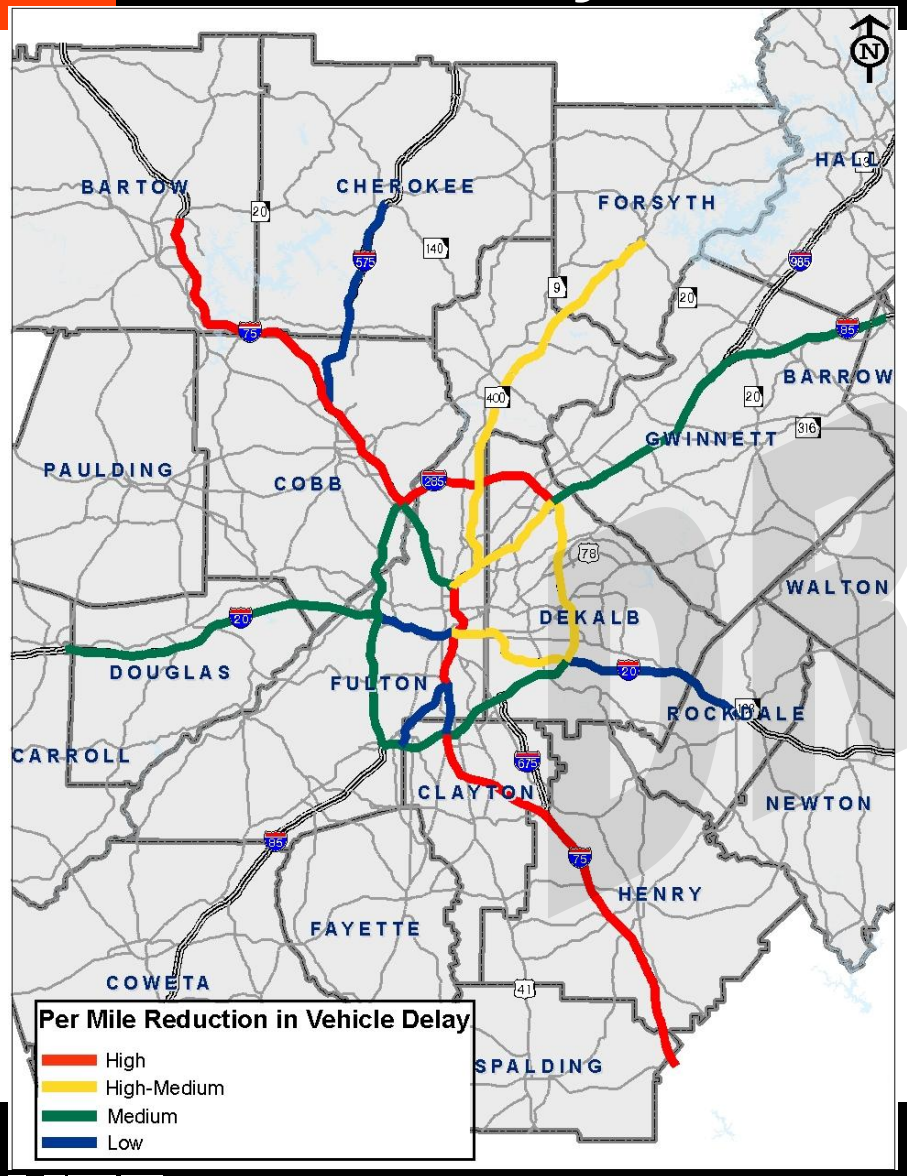
*Delay Reduction for Max Throughput Policies

- **High**
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ SR 400 from I-85 to SR 20
- **High-Medium**
  - ✓ Downtown Connector
  - ✓ I-85 North from I-285 North to SR 211
- **Medium**
  - ✓ I-285 North from I-85 North to I-75 North
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-85 North Inside I-285
- **Low**
  - ✓ I-575 from I-75 to SR 20
  - ✓ I-20 East Inside I-285
  - ✓ I-75 North Inside I-285
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-20 West Inside I-285
  - ✓ I-85 South Inside I-285
  - ✓ I-75 South Inside I-285





Summary Per-Mile Delay Reduction* Ranking



- **High**
  - ✓ Downtown Connector
  - ✓ I-75 North from I-285 North to SR 20
  - ✓ I-75 South from I-285 South to SR 16
  - ✓ I-285 North from I-85 North to I-75 North
- **High-Medium**
  - ✓ SR 400 from I-85 to SR 20
  - ✓ I-285 East from I-20 East to I-85 North
  - ✓ I-20 East Inside I-285
  - ✓ I-85 North Inside I-285
- **Medium**
  - ✓ I-85 North from I-285 North to SR 211
  - ✓ I-285 West from I-75 North to I-20 West
  - ✓ I-20 West from I-285 West to Post Road
  - ✓ I-285 South from I-75 South to I-20 East
  - ✓ I-75 North Inside I-285
- **Low**
  - ✓ I-575 from I-75 to SR 20
  - ✓ I-20 East from I-285 East to SR 138
  - ✓ I-20 West Inside I-285
  - ✓ I-85 South Inside I-285
  - ✓ I-75 South Inside I-285

HNTB

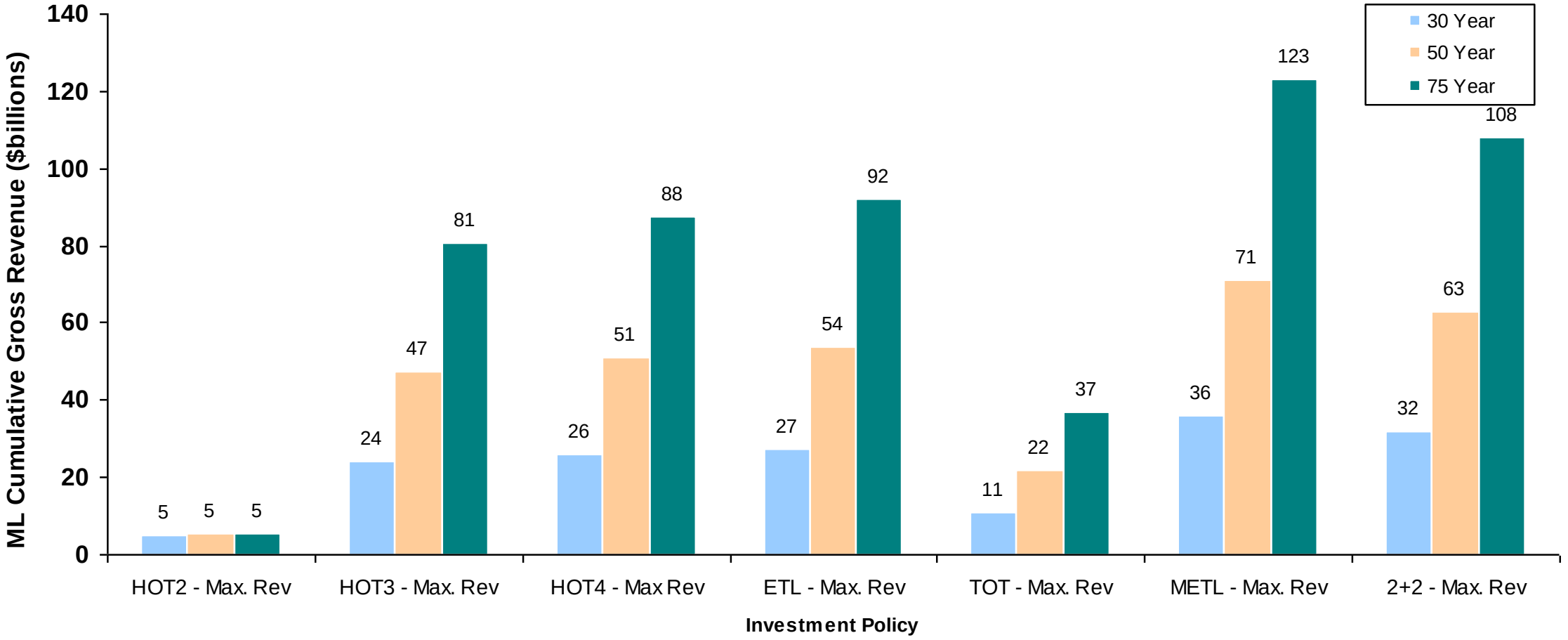
*Delay Reduction for Max Throughput Policies



Cumulative Gross Revenue



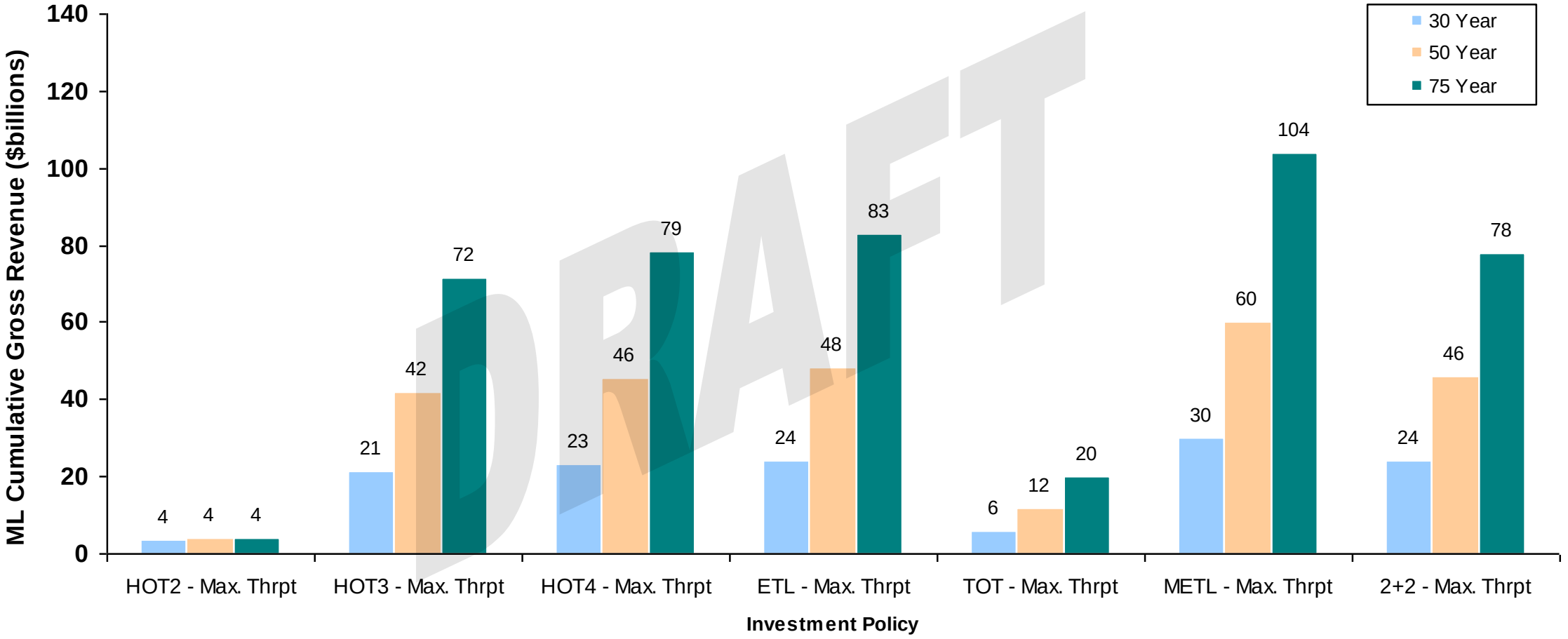
Gross Revenue* Graph – Max Revenue



HNTB

*** Cumulative System Gross Revenue. The Financeable amount would be a fraction of cumulative gross revenue**

Gross Revenue* Graph – Max Throughput



HNTB

*** Cumulative System Gross Revenue. The Financeable amount would be a fraction of cumulative gross revenue**

Gross Revenue* (per lane-mile) Matrix

Managed Lane Policy	System Lane-Miles	Gross Revenue ($millions)		
		30 Year	50 Year	75 Year
HOT2 – MaxRev	1,100	4	5	5
HOT3 – MaxRev	1,100	22	43	74
HOT4 – MaxRev	1,100	24	47	80
ETL – MaxRev	1,100	25	49	84
TOT – MaxRev	680	16	32	54
METL – MaxRev	1,500	24	47	82
2+2 – MaxRev	1,800	18	35	60

- Different policies have different numbers of lane-miles
- ETL policy generates the highest revenue streams *on a per-mile basis* for 30, 50, and 75-year periods
- If all lane-miles cost the same amount to build, the ETL policy would be the most efficient, based on the revenue per lane-mile numbers shown here

*** Cumulative System Gross Revenue. The Financeable amount would be a fraction of cumulative gross revenue**



Gross Revenue* (per lane-mile) Matrix

Managed Lane Policy	System Lane-Miles	Gross Revenue ($millions)		
		30 Year	50 Year	75 Year
HOT2 – Max Thrpt	1,100	4	4	4
HOT3 – Max Thrpt	1,100	19	38	65
HOT4 – Max Thrpt	1,100	21	42	71
ETL – MaxThrpt	1,100	22	44	75
TOT – MaxThrpt	680	9	18	29
METL – MaxThrpt	1,500	20	40	69
2+2 – MaxThrpt	1,800	13	26	43

- Different policies have different numbers of lane-miles
- ETL policy generates the highest revenue streams *on a per-mile basis* for 30, 50, and 75-year periods
- If all lane-miles cost the same amount to build, the ETL policy would be the most efficient, based on the revenue per lane-mile numbers shown here

*** Cumulative System Gross Revenue. The Financeable amount would be a fraction of cumulative gross revenue**



Next Steps - Ongoing

- Develop Cumulative Net Revenue
- Develop analysis framework for risk assessment
  - Growth
  - Willingness to Pay
  - Transportation Improvements



- Questions!